Master thesis for the Master of Economic Theory and Econometrics

Pressure versus Information -

What Determines the Choice of the NGO?

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Figure 1:

Preface

I would like to take this opportunity to thank the people that have helped me in the process of completing my master thesis. First of all I would like to thank my supervisor Leo Andreas Grünfeld for enthusiastic and skillful guidance. Without his instructive advices, this thesis as it is today, would not have been possible. I also owe a big gratitude to the researchers, staff and fellow students at the Norwegian Institute of International Affairs, who have offered me their skillful advices, as well as financial and moral support during the preparation of this thesis. I should also mention Professor Gérard Roland at UC Berkeley, without whom I would not have been introduced to the exciting field of political economy in the first place. Eirik Smestad for giving me excellent technical assistance and Tonje Haabeth for proofreading.

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Abstract

Non-governmental organizations (NGOs) seek political influence through the provision of information directed towards political representatives. In addition, NGOs also frequently apply means of political pressure, for instance through exposure of the issues at stake in the media. To understand how NGOs obtain impact on political decisions, one must analyze the mechanisms that makes it rational for the politician to comply to these less formal political activities. With the use of tools and concepts from economic theory, I provide an explanation of why and how NGOs have political influence.

This thesis develops a model that provides several predictions regarding these questions. Large policy responses are likely to be observed on complex issues of significant public interest. If the conflict of interest between the incumbent and the NGO under these circumstances is large, the NGO can start an informational cascade via the media, which consequently put pressure on the incumbent to change its policy. We do not however expect to see much impact on policy from NGOs in situations where we have a non-complex issue of large public interest. In this situation the incumbent will emphasize the median voter, at the same time as there is no scope for the NGO to start an informational cascade.

The model also gives predictions related to the distribution of resources between competing NGOs'. Given a situation where the issue is of little public interest, the model's prediction is in line with the conventional theory, that the NGO with the most resources will gain policy influence. However, in situations where the specific issue is complex and of large or moderate public interest, the distribution of resources between the NGOs will be of little relevance for the final policy. In fact, the model predicts that a poor NGO can win the competition over policy if its interest of conflict with the incumbent is sufficiently strong. Although the economic model made for this thesis produce interesting results, it is to consider as a crude understanding of reality, primarily intended as a point of departure for further economic research on the subject.

Contents

Chapter 1

Introduction

Non-governmental organizations (NGOs) seek political influence through the provision of information directed towards political representatives. In addition, NGOs also frequently apply means of political pressure, for instance through exposure of the issues at stake in the media[1]. To understand how NGOs obtain impact on political decisions, one must analyze the mechanisms that makes it rational for the politician to comply to these less formal political activities. Over the last decades a growing number of NGOs have given the organized civil population an increased local, national and international recognition, and hence political influence. Driven by falling costs of communication the number of NGOs has increased more than the tenfold since 1970 [21]. In a 1995 UN report on global governance the estimated number of international NGOs (INGOs) were 29,000 [26], while in 1969 there existed somewhere between 2500 and 3000 such organizations [28]. The number of

[1]Political pressure is here a collective term for campaigns such as public demonstrations, strikes, sit-ins, sabotages or critical chronicles. In the political economy literature political pressure often refers to financial campaign contributions from special interest groups.

national NGOs is significantly higher[2]. The increased influence of the organized civil society has come with the cost of a more complex and opaque political decision process. Although there are few systematic empirical studies of NGOs' influence on public policies, there is plenty of anecdotal evidence to support the role of NGOs as agenda setters and influential political players[3].

I will briefly give two examples of such anecdotal evidence. The first is the international 'anti-globalization' movement which gained strength during the late 1990's. To most people the movement became known after the WTO summit in Seattle the fall of 1999 which was overshadowed by massive street demonstrations. The demonstrations were mainly organized by national and international NGOs concerned with labor issues, the environment and consumer protection. Succeeding events such as the World Bank meeting the fall 2000 in Prague and the G8 summits in Gothenburg and Genoa the summer of 2001 experienced similar demonstrations and public riots. The NGOs' pressure against globalization and trade liberalization gained tremendous media attention which raised the public awareness on the issue. The media coverage was mainly related to the authorities' abuse of activists which eventually led to a proliferation of scepticism toward globalization in the population. Globalization is a complex issue that has more dimensions to it than any private individual can make an overall reasonable assessment of. Complex issues are rarely subject to strong debate during an election campaign. Consequently, the political process behind such issues is more detached from

[2]The same 1995 UN report prepared for the World Conference on Global Governance (1998) reported an estimation of 2 million NGOs in both the US and in India, while in Russia there were only 4000.

[3]Examples of public policies could be the level of regulation, allocation and level of public finance or trade policy.

the election process. Decisions are made with less attention to the voter perspective and more attention to information provision and lobbying. Yet, when NGOs succeed in achieving media attention, like the anti-globalization movement did, there is a large scope for winning the sympathy of the public, partly driven by an informational cascade mechanism. In addition to news coverage in the conventional media such as newspaper, television and radio, the anti-globalization movement also received considerable support from the popular culture like rock-groups showing their sympathy with the movement through lyrics, or popular authors writing books on the subject. All of this is incorporated into the concept of media and the transmission of information, and contributes to persuade the public and eventually politicians to comply through democratic mechanisms. Whether the anti-globalization has had any short term practical political impact on WTO negotiations or the World Bank's practices remains an open question. However, by raising the awareness of the population on complex issues the NGOs are likely to eventually gain some influence.

Another illustrating example is the emergence of environmentalist NGOs and how they have contributed to put regulation of carbon dioxide emissions on the international political agenda. In the aftermaths of the Kyoto protocol where national quotas for carbon dioxide emissions were set, a pronounced public debate emerged in Norway concerning whether one should build natural gas powerplants or not. Environmentalist NGOs were strictly against the development of such energy plants and argued that gasworks would lead to more power consumption and larger carbon emissions. The supporters however claimed that the energy produced with the gas powerplants would

replace more polluting sources of energy. Although some argue that the environmentalist NGOs have had less success than they should have had, it is unquestionable that they have raised the public awareness on this issue and hence the governmental regulation of emissions.

In this thesis I will not take any stand on whether NGOs' increased influence on public policies has led to a pareto improvement or not. However, by using tools and concepts from economic theory I will try to give an explanation of why, how and which NGOs have political influence. In the passage that follows I will first discuss the motivation of governments before I present a brief outline of the formal model presented in Chapter 3. There are basically two traditions within political economy literature, resting on alternative determinants of the formation of policy. The first tradition assumes that the politician has ideological preferences and is motivated by specific policy outcomes. Politicians with such motives are referred to as partisan politicians [27]. The second approach, which is the most commonly used in political economy, takes as a point of departure that there are some rents of holding public office and that the candidate will opportunistically decide on whatever policy the majority of the people desires. In this thesis, I try to synthesize the two traditions by assuming that the politician has preferences beyond simply satisfying the preferences of the median voter. Specifically, I assume that there are certain issues in the candidates' party programmes which are not extensively debated during the election campaign and for which the candidate can set its own preferred policy without any significant effect on the electoral outcome. A common characteristic of the issues that are not brought up during a campaign is that they are highly complex. Downs (1957)

argued that when private information is costly to obtain, it can be rational for individual voters to stay uninformed since the costs exceeds the marginal utility of being informed [12]. Hence, when issues are complex it is likely that most voters are insufficiently informed to determine their own preferred policy on the issue. Complex issues are therefore unfit as campaign issues since the voters are incapable of deciding their preferred candidate based on this issue.

The model I present in chapter 3 has two competing NGOs that lobby the government for influence on the same issue. The NGOs, which differ both in terms of preferences and access to resources, must choose between informational lobbying or political pressure as means of influencing the final policy outcome. Pressured by the two competing NGOs, the government must decide on maintaining the party programme policy or implementing an alternative policy, either motivated by convincing arguments presented through informational lobbying or by the adjustment of the median voter's preferred policy spurred by political pressure through the media.

If there is no new information, or if the signals received from the respective NGOs cancel each other out, the incumbent will prefer to go through with the policy stated in its party programme. The amount of informational lobbying an NGO will perform depends on to which extent the incumbent emphasizes the policy outcome itself and the NGO's resource budget constraint. We assume that the incumbent's conviction about the optimal policy can be bought in the way that the more resources (e.g. financial) the NGO spends on informational lobbying the more convinced is the incumbent that the NGO is right. This way of modeling lobby activity is different from the lobbying

through campaign contributions in Grossman and Helpmans famous paper 'Protection for sale' (1994) [13]. In that model, the lobbyists transfer funds directly to the candidate, which is more in accordance with American practices. Our approach is more in line with the European tradition of buying arguments provided by lawyers and researchers to convince the politician[4]. To illustrate, the informational lobbying game can be compared to a court suit between two conflicting parties. The two competing NGOs can be interpreted as a plaintiff and a defendant and the government as judge. Similar to a plaintiff and a defendant presenting evidence to promote their cause for the judge, the two competing NGOs present evidence for the government. In a law suit the party with most available resources to spend on lawyers will have a relative advantage in providing the best evidence and hence increase its chances of winning the law suit. The same is true for informational lobbying. The wealthier NGOs will have an advantage in performing informational lobbying independent of what the true state happens to be[5]. It is important to notice that our model distinguishes itself from signalling games since there is no assumption about any true state and therefore no asymmetric information.

The alternative strategy to informational lobbying is political pressure. In order to put credible pressure on the politician, the NGO needs public attention. As described in Strömberg (2002, 2004) the media is maximizing profits and with its increasing returns to scale technology it is optimal to get as many readers as possible[6] [29][30]. Voters only have preferences over

[4]The model in Chapter 3 could easily be interpreted in the American tradition of campaign contributions.

[5]Campaign contributions would in this example be interpreted as bribing the judge.

[6]Voters and customers are terms that address the same group of people from different

policy outcomes that have a direct influence on their welfare and hence only a demand for media coverage that provides information on these policies. McCluskey and Swinnen (2004) present a rationale for what they refer to as the 'bad news hypothesis' [20]. It states that the media will have a clear bias towards negative news due to the demand for such reports from their readers[7]. Taking these theories into account the amount of policy coverage by the media will be an increasing function of the policy's deviation from the median voter's preferences[8]. There are three factors in our model that determine whether an NGO will have success in using political pressure to influence the incumbent's policy decision. The first is that the issue must be relevant for a large group of people. If not, there will be no demand for media coverage on the issue, and hence, the media will not devote any attention to the subject. The second is that the issue must be complex. Without complexity there is no scope for NGO influence on the median voter through the media since the voters have strong private signals regarding the issue. Finally, the desired policy of the NGO must have a characteristic of 'bad news', which implies that the NGO's preferred policy must be distant from the incumbent's stated party programme policy. The NGO with the strongest conflict of interest with the incumbent's preferred policy will therefore have a comparative advantage in political pressure[9]. If all of these factors are present the politician will bias its policy decision in favor of the NGO. The reasoning

perspectives.

[7]for a detailed explanation see section 2.5.2

[8]Since the audience is interested in bad news, and the media is interested in maximizing interested readers, it follows that the media attention to a policy decision is larger the larger the group of voters that considers the respective policy as bad news.

[9]This argument is line with the fact that political pressure often is referred to as 'protest movements'.

is that if the issue is of public interest, complex and has characteristics of 'bad news' the NGO can influence the desired policy of the median voter. Since the incumbent has reelection motives the median voter's preferred policy is again important for the incumbent's final policy decision. The median voter's preferred policy is in this case endogenously determined by the NGO's public signal through the media.

NGOs influence on politics is a new field of economic research that deserves further attention. Before I formally present my own theory in Chapter 3, I will devote the next chapter to a literature survey of selected theories within the political economy and informational economics literature. The theories presented in Chapter 2 are meant to serve as a theoretical basis for arguing how NGOs' role in politics can be compatible with economic theory. The literature survey in Chapter 2 is by no means complete, but gives a presentation of elements that I believe can contribute to the narrative of how NGOs get political influence. Readers who are already familiar with the literature can skip Chapter 2 and go directly to Chapter 3 where the model is presented.

Chapter 2

NGOs' political influence: a literature survey

The theory chapter is divided into six sections. Apart from the 'private politics' literature -which addresses NGOs explicitly- there are few, if any, economists that have dealt with NGOs role in democracies. However, there do exist economic theories that easily can be related to and applied to analyze the political impact of NGOs. Section 2.1 and 2.2 deal respectively with informational lobbying and political activism, which are two activities that characterize the work of many advocacy NGOs, and hence relevant for this thesis. Section 2.3 is a theory of asymmetric information between groups of voters. The theory predicts that political representatives emphasize informed voters in their policy decisions since informed voters are more responsive to policy decision in their voting behavior. If members of NGOs are generally better informed than other citizens then this may be an explanation of why NGOs have more political impact than they otherwise would have in a

democracy. Section 2.4 address the Private politics literature which distinguish itself from the the rest of the theory chapter for two reasons. First of all is it the only economic theory to my knowledge that address NGOs political activities explicitly. The second reason is that private politics does not focus on asymmetric information, but takes as point of departure a bargaining game between two conflicting parties. Section 2.5 is about the media and its important role in society, transmitting information to the citizens. The media is hence an important channel through which NGOs can get public and political attention. Last but not least, section 2.6 presents the theory of informational cascades. This theory is relevant, since it could provide an explanation of NGOs' political impact due their ability to influence voters' preferred policy via a strong public signal about the optimal policy.

I consider the collection of theories presented in this chapter as an important basis for further theoretical work on NGOs political influence. My model, which is presented in Chapter 3, implicitly incorporates the theory of informational cascades and several characteristics of the media.

2.1 Informational lobbying

The formalized theory of informational lobbying, first introduced by Potters and van Winden (1992), was originally intended to explain the interaction between expert special interest groups and politicians [16]. However, Meyer's paper 'the political economy of NGO and information sharing' (1997), states that NGOs also have an important role as producers and providers of information to decision makers. Furthermore she points out that the potential

political role of NGOs has been increasingly important due to reduced costs of communication and information transmission [21]. The economic literature on informational lobbying is therefore also highly relevant for modeling NGOs' influence on public policy.

NGOs accumulate knowledge and perform research on the issues that they have preferences for. This information can be useful for uninformed politicians who wants to make well informed decisions. However, since the NGO has an incentive to bias the truth, not all signals from the NGO are credible. The problem of the politician is then to distinguish 'cheap talk' from useful expertise information. This can be done by analyzing the incentive structure of the NGO. If there are no incentives for the NGO to speak the truth, then it reveals no information to the politician and has consequently no influence on the politician's decision. Such an situation is referred to as a 'babbling equilibrium' [14]. However, in situations where the NGO have incentives to speak truthfully, there will be informational lobbying and the NGO's behavior will have impact on politics.

2.1.1 Informational lobbying with signalling

I want to illustrate the concept of 'informational lobbying with signalling' by using Grossman and Helpman's (2001) textbook model, based on Potter and van Windens (1992) original contribution [14][16]. In the model there is a single special interest group (SIG) which have the following preferences

$$U = -(p - \theta - \sigma)^2 - l \tag{2.1}$$

where p is the policy decided by the incumbent, θ describes the true state of the world, σ is the policy bias of the SIG relative to the politician and l is the exogenous cost of performing information lobbying for the SIG[1]. In this setting the SIG is assumed to know the true state of the world which may be either θ_H or θ_L, where $\theta_H > \theta_L$ and where the lobbies preferred state is always σ larger than the true state θ. The policymakers utility function is

$$G = -(p - \theta)^2 \tag{2.2}$$

which implies that its desired policy is the true state, but it does not know what it is. Since the SIG knows the true state, and the incumbent does not, informational lobbying has a welfare enhancing potential. In this model the SIG is said to be moderate since its preferred policy is dependent on the true state θ[2]. This way there is some congruence in the interest of the SIG and the policymaker, however, the politician must be aware of strategic manipulation since the SIG prefers a higher value of the final policy p than the politician does. The game proceeds as follows: first the SIG learns the true state, then it decides whether to bear the cost l of preparing and presenting its case to the policymaker. If the SIG decides to provide informational lobbying, the policymaker will update its believes on θ based on the content of the lobbying report and the fact that the SIG was willing to bear the cost l of preparing a report. Since there are only two states of the world in this model, θ_H and θ_L, the SIG only has incentives to misreport the truth when the true

[1]The exogenous lobbying costs can for example be interpreted as the fixed cost of hiring a lawyer to write a letter to the legislator.

[2]Alternatively, like the model in Chapter 3, the NGOs have preferences independent of any true state and can be called extremists

state is θ_L. If the lobbyist always have incentives to report θ_H then lobbying does not reveal any new information to the politician and the policymaker will simply set the policy $p = (\theta_H + \theta_L)/2$[3]. This is an example of the aforementioned 'babbling equilibrium', were the politician does not receive any new information from the SIG that can update his beliefs. When the bias of the NGO is small relative to the true state, σ small, then the potential benefit of false reporting may be to small to justify the lobbying costs, and so the SIG choose not to lobby when the true state is θ_L. When that is the case, the policymaker will know that the true state is θ_H whenever it observes the SIG lobby.

To construct such an equilibrium were the SIG lobby signal indicate that the true state θ_H, we must investigate when the costs are such that the SIG does not have the incentives to lobby when the state is θ_L, but does have the incentive to lobby when the true state is θ_H. The SIG is willing to bear the cost of lobbying in state θ_H if the utility of lobbying is greater than the utility when not lobbying:

$$-(-\sigma)^2 - l \geq (\theta_L - \theta_H - \sigma)^2 \tag{2.3}$$
$$l \leq (\theta_H - \theta_L)[2\sigma + \theta_H - \theta_L] \equiv k_1$$

To have an equilibrium the SIG must also prefer to refrain from lobbying

[3]If no new information is revealed the politician simply assumes that there is an equal probability for each of the two states to occur

when the state is θ_L. This is satisfied as long as:

$$-(-\sigma)^2 \geq (\theta_H - \theta_L - \sigma)^2 - l \tag{2.4}$$
$$l \geq (\theta_H - \theta_L)[2\sigma - (\theta_H - \theta_L)] \equiv k_2$$

As we see from the inequalities k_1 is larger than k_2 which imply that there exist a range of lobbying costs, l, where $k_1 > l > k_2$, such that both inequalities 2.3 and 2.4 are fulfilled. If these criterions are satisfied there exists an equilibrium where informational lobbying is completely truth revealing. This type of informational lobbying is a typical signalling game. An important notion is that the potential change in the incumbent's behavior is not induced by the content of the message itself, but rather the characteristics of the interest group. This type of game where the politician is considered to be a generalist and the NGO is a specialist distinguish itself from the modeling of informational lobbying used in Chapter 3. In that model there exists no signalling of the true state, and so the effect of informational lobbying is simple a matter of how much resources the NGO spends on lawyers and researchers to support the NGO's agenda. Although the treatment of informational lobbying in Chapter 3 is done somewhat more superficial than the model just outlined here, the theoretical predictions that political influence increase with the amount of money spend on informational lobbying and decrease with the conflict of interest between lobbyist and politician remain the same.

2.1.2 Informational lobbying in repeated games

Informational lobbying is more likely to occur in (infinitely) repeated games[4]. In the real world NGOs and politicians meet repeatedly, and the NGO gains from building up a reputation as truth-telling [11]. In order to keep its reputation, the NGO does not have an incentive to deviate from truth-telling since it would have long term negative consequences for its political influence. There are several examples of NGOs that have managed to build up a credible reputation of truth-telling. An interesting example of reputation building was done by 'Doctors Without Borders Norway' who after receiving overwhelming financial support in the aftermaths of the Tsunami, went to the media and stated that they had received the financial help they needed for this operation. At the same time as they encouraged people not to forget about other crises around the globe, the also signalled that they were a responsible long term organization.

2.1.3 Verifiable reports

An alternative to the "cheap talk" framework is to analyze informational lobbying in terms of verifiable reports [11]. In these models, first introduced by Milgrom (1981), the lobby can not lie about the true state to the legislator, however it can choose to not lobby and withhold its information [22]. In a recent paper by Dahm and Porteiro (2006) they assume verifiable reports and model a lobbying group that use both informational lobbying and

[4]To read more about repeated games see Watson (2002) [32].

political pressure as means for achieving influence on legislators' decisions[5] [11]. To provide informational lobbying the SIG decides ex-ante whether to buy a public or a private test. Both tests reveal the true state of nature with probability x, gives no result with probability $1 - x$ and can be bought at a cost $C(x)$. If the SIG choose the private test it can strategically choose to withhold information in the case of an undesired result, while if it chooses a public test there is no scope of withholding the test results. When the politician receive the test results from the SIG it updates its believes according to Bayes' rule and sets the policy according to these new believes. While the 'cheap talk' model only signalled the true state via the SIG's decision to invest in lobbying or not, the existence of verifiable reports makes also the content of the report valuable to the legislator. Whether the SIG decides to lobby or not within this framework depends on the cost of doing research as well as the probability of finding the desired result.

2.2 Political activism as signalling

Lohmann (1993) provides a hypothesis to the puzzle why politicians sometimes respond to political action [18]. She argues that the political leader has a policy rule that takes a cue of the size of the protest movement, and if the number of activists exceeds a certain critical threshold the incumbent will shift policy in favor of the activists.

The critical threshold for shifting policy is a function of the population's incentives to participate, which again is determined by environmental param-

[5] When Dahm and Porteiro talk about political pressure they refer to campaign contributions. This is different from the interpretation of political pressure in this thesis.

eters affecting the benefits and costs of participation. Assume two countries, country A and country B, which are identical in all respects, except that in country A political activism is attended with the risk of exposure to policy brutality. Since political activism is perceived to be more risky in country A there will consequently be fewer citizens that dear to demonstrate. Lohmann's theory is that even though the protest movement in country A is smaller than in country B, the effect on policy will be the same. The reason is that the incumbent will take the weaker incentives of country A to perform activism into account when it sets its critical threshold for participation. This way the smaller protest movement in country A will gain the same impact on policy as in country B[6].

In Lohmann's model the incumbent has no expert information, while all individuals receive a private signal from their daily life about the true state of the world. The private information from all individuals is assumed in aggregate to give a correct understanding of the causality between policy and outcome. The economy has a heterogenous population with four types of voters: *the activist moderates, the rationally apathetic moderates, the anti-status-quo extremists and the pro-status-quo extremists.* The *anti-status-quo extremist* will always demonstrate regardless of their information about true state, while the *pro-status-quo extremist* will never demonstrate. Since the actions of the extremists are independent of their private information about the true state, their actions reveal no information to the incumbent. However, among the group of *activist moderates* there are some individuals that take costly political action in order to signal their private information to the

[6]What the incumbent in country A should do before anything else is to tell the police to take it easy on the demonstrators. I will not pursue this debate here.

leader, and influence her decision. These political actions give information to the incumbent since they are state dependent. Some of the *rationally-apathetic moderates* may also prefer a policy change given their private signal about the true state, but for them the gain of changing policy is smaller than the private cost of political action so they stay at home.

The incumbent has opportunistic preferences and in order to maximize its chances of being reelected it wants to implement a policy that is beneficial to the median voter, which is found in the group of moderates. In equilibrium does the incumbent's decision whether to change policy or not depend on the number of activists, and the population's incentives to demonstrate. The fact that the activists' preferences are not representative for the population as a whole does however not bias the policy decision. This is because the incumbent discounts the aggregate number of political actions by taking into account that the *anti-status-quo extremists* always perform political actions.

In her model Lohmann does not try to explain why we from time to time observe huge turnouts in public demonstrations, but rather why small numbers can often make a 'big splash'. She recognizes two effects that may give a small number of activist a decisive effect on policy. The first effect originate from her paper on the Monday demonstrations in Leipzig before the fall of the Berlin wall (1992), where she interpreted the demonstrations as an 'informational cascade' [17]. The idea of the informational cascade is that since individual's policy preferences are correlated, publication of some individual's negative experiences may affect other individuals' policy preferences. This informational cascade may in turn alter the decision of a leader with reelection motives. The second reason why the size of the

protest movement is not decisive for its impact on policy is, as mentioned introductorily, that the critical number of actions depend on the populations' incentives to participate. The relationship between turnout and impact is determined by the incumbent's ex-ante expected number of political actions relative to the realized turnout. If the realized turnout is small in absolute numbers, but larger than the incumbent's ex-ante critical threshold value, then the small group will provide a strong enough signal to the political leader to shift policy.

The theme of informal ways of achieving impact on public policies in Lohmann (1992,1993) is very similar to that of this thesis. Lohmann focuses on direct linkages between demonstrators and political leaders, while I look at processes also including NGOs and the media. Both, however, recognize the significance of informational cascades in democracies which shift people's preferred policies. The theories are therefore compatible within the story of interactions between NGOs, political activism, the media, voters and political leaders.

2.3 Information asymmetries between groups of voters

Lohmann (1998) predicts that special interest organizations may achieve greater political influence than their proportion of the constituency corresponds to [19]. She argues that members of special interest organizations are better informed than the average voter, and will therefore be more responsive to political maneuvers than the average less informed voter. Better informed

voters have a more precise signal about the causality between politicians' policies and its observed consequences, and are consequently more responsive to political actions. Responsive means that they are more likely to use their vote to punish or reward the politician for its performance in office. The prediction that politicians disproportionately emphasize informed voters represented by the special interest organization is easily applied for voters in support of an NGO. I will illustrate this with an example.

Let's assume that there are two groups of voters of different size[7]. The smallest one is organized in an NGO and supporter of the environment, the larger one is unorganized and has strong preferences for low prices on consumer goods. An NGO, compared to individual voters, has low costs of accessing information on political decisions. The NGO's low access cost combined with the ability to transmission information cheaply to its members, makes the voters in support of the NGO better informed than the voters without an NGO working for their preferences[8]. The incumbent is aware of the fact that if she increases environmental standards, most of the environmental supporters will know that she has done a good job for their cause and reward her with their vote. Increasing environmental standards leads to increased production costs and more expensive consumer goods. Members of the large group of voters will therefore experience increased consumer prices as a consequence of the improved environmental standard. This group however is less informed due to high individual costs of monitoring political

[7]The assumption of difference in group size is not necessary, but makes the example more interesting.

[8]This difference is probably even larger between the groups of voters that are targeted by the media and the groups of voters that are not targeted by the media. For a discussion on this see section 2.5.

decisions and therefore do most of them not infer that the increased price level is the incumbent's fault. Since the incumbent is not held responsible by the large group, but rewarded by the smaller group supporting the NGO, the politician achieves a net gain by biasing her policy toward the small group. Although optimal for the politician, the outcome is socially inefficient since the largest group of voters is neglected.

2.3.1 Asymmetric information in the probabilistic voting model

I will show that this situation can be modeled by reinterpreting the probabilistic voting model described in Persson and Tabellini (2000), first introduced by Hinich (1977)and Couglihn and Nitzan (1981) [15][10]. In our new interpretation of the probabilistic voting model the size of the distribution interval of the individual-specific parameter σ^{iJ} is dependent on the precision of the information signal a group receives regarding economic policy. σ^{iJ} is uniformly distributed on the interval

$$\left[-\frac{1}{2\phi^J}, \frac{1}{2\phi^J}\right].$$

where i is the number of people in the economy and J signals whether the individual belongs to the organized group (O), or the unorganized group (U). A well informed group will have a higher value of ϕ^J, which reduces their ideological bias, and makes them more responsive to economic policy[9].

[9]A higher value of ϕ^J makes the interval smaller which increases the density of voters for each value of σ^{iJ}.

The utility of a voter in group J is represented by the function

$$\omega^J = c^J + H(e) \tag{2.5}$$

Where $H(\cdot)$ is a concave and increasing function, e is the level of environmental regulation, and c^J is the private consumption of group J. Private consumption is given by

$$c^J = (1 - \tau)\, y^J \tag{2.6}$$

where y^J is the income of group J, $y^U > y^O$ and $0 \leq \tau \leq 1$. An important notion is that differing income levels across the two groups is what makes the two groups, O and U, have different views on the importance of the environment relative to private consumption in this model[10].The governmental expenditure on environmental protection is

$$e = \tau y \tag{2.7}$$

where y is average income level in the economy across the two groups. Inserting equation 2.6 and 2.7 into equation 2.5 and maximizing with respect to the tax level τ, we find the preferred level of environmental regulation for group J

$$e^J = H_e^{-1}(\frac{y^J}{y}) \tag{2.8}$$

As you can see from equation 2.8, the preferred environmental standard will

[10]This drive of the model is not an attempt to explain why some individuals are organized and others are not. However if one assumes that the correlations between young and poor, and old and rich are strong, this assumption may not be too far fetched since people organized in environmentalist NGOs tend to be young of age.

vary with the group's income level, y^J. The high income group will optimally prefer a lower provision of publicly financed environmental standard since they pay more (in absolute terms) for the same regulation.

There are two political parties, A and B, which are identical and compete for political power. Voter i in group J prefers party A if

$$W^J(e_A) > W^J(e_B) + \sigma^{iJ} + \delta$$

where e_A and e_B are the policy proposal of party A and B respectively, while σ^{iJ} is an individual-specific parameter that measures voter i's individual ideological bias toward party B. σ^{iJ} can take on negative as well as positive values. As stated before σ^{iJ} is uniformly distributed over the interval

$$\left[-\frac{1}{2\phi^J}, \frac{1}{2\phi^J}\right]$$

since σ^{ij} is uniformly distributed, ϕ^J is the density. Both groups have members with an inherent bias in either direction, however the larger the value of ϕ^J for the specific group, the smaller is this bias. Since the group in support of the NGO receives more precise information signals about the causality between policy and outcome they become more likely to reward policy favors with a vote. This is exactly what the size of ϕ^J tell us. The larger ϕ^J is, the smaller is the ideological bias and the more responsive the group is to slight changes in policy decisions.

δ measures the aggregate uncertainty and tells us the inherent popularity of a party B compared to party A in the population as a whole. The

parameter δ is assumed uniformly distributed over the interval:

$$\left[-\frac{1}{2\psi}, \frac{1}{2\psi}\right]$$

The timing in the model is as follows: (1) candidate A and B simultaneously announce their electoral policy e_A and e_B. At this stage they know the distribution of σ^{iJ} and δ, but not their realized values. (2) δ is realized and all the uncertainty is resolved, (3) elections are held, and (4) the promoted policy is implemented.

In order to solve this, we begin at stage (2) and identify the swing voter, which is the voter indifferent between voting for party A and party B

$$\sigma^J = W^J(e_A) - W^J(e_B) - \delta.$$

All voters i in group J prefers party A as long as $\sigma^{iJ} \leq \sigma^J$. Party A's share of the voters can be expressed as

$$\pi_A = \sum_J \alpha^J prob\left(\sigma^{iJ} \leq \sigma^J\right) = \sum_J \alpha^J \phi^J \left(\sigma^J + \frac{1}{2\phi^J}\right), \tag{2.9}$$

where α^J is the size ratio of group J. The probability of winning the election for party A is then

$$p_A = prob\left(\pi_A > \frac{1}{2}\right) = \frac{1}{2} + \frac{\psi}{\phi}\left[\sum_J \alpha^J \phi^J \left(W^J(e_A) - W^J(e_B)\right)\right], \tag{2.10}$$

where $\phi \equiv \sum_J \alpha^J \phi^J$ is a constant. In equilibrium both parties face an identical maximization problem, and end up choosing the same policy $e_A = e_B$.

It follows that the equilibrium swing voter is the individual with parameter $\sigma^J = -\delta$. We find the equilibrium policy by maximizing the probability for party A of winning the election with respect to the environmental policy, e_A. The f.o.c gives us

$$\frac{1}{y}\sum {}_J\alpha^J\phi^J y^J = \sum {}_J\alpha^J\phi^J H_e\left(e_A\right) \tag{2.11}$$

The optimal policy is then

$$e_A = H_e^{-1}\left(\frac{\frac{\sum_J \alpha^J\phi^J y^J}{\phi}}{y}\right) = H_e^{-1}\left(\frac{\widetilde{y}}{y}\right) \tag{2.12}$$

Where $\widetilde{y} = \frac{\alpha^O\phi^O y^O}{\phi} + \frac{\alpha^U\phi^U y^U}{\phi}$, which is a weighted average of the income for the two groups. The weights are a product of group size and group information, and imply that a small group of people can always compensate by being equivalently more informed in order to achieve the same political influence. From the model you can see that if the two groups were equally informed then the environmental policy would be determined by the average income voter.

The theory of asymmetries of information between voter groups can explain why it may be rational for a politician to disproportionately emphasize the agenda of an NGO that only represent the preferences of a small part of the constituency. Strömberg (2002) argues analogously that informed voters are more emphasized in public policy (see 2.5). However, instead of focusing on whether groups are represented by a special interest organization or an NGO, he argues that the asymmetries in information is due to the selection

bias regarding which groups of citizens are the most profitable customers for the media [30].

2.4 Private Politics

The private politics literature is one of the few contributions made by economists on NGOs. Baron's paper 'Private politics' (2003) was the first to formalize a theory on NGOs' influence on corporate behavior [3].The most recent contributions are done by Baron (2005) and Baron and Diermeier (2005) [5][4]. The term private politics refers to situations were conflicts are solved in a bargaining game without relying on the law or governmental intervention. Private politics is a particularly important tool for NGOs to regulate foreign practices of multinational corporations. Multinational corporations have a pattern of locating their manufacturing to poor countries with unorganized labor unions. These economies are often dependent on capital from multinational companies, and in order to attract corporations they participate in a race to the bottom with respect to labor laws and governmental regulation. The repeated campaigns launched against the multinational cloth and footwear producers Nike and Adidas is a typical example of private politics. Both companies have experienced heavy criticism and falling demand for their products as it became public knowledge that several of their products were produced by children. The massive exposure to negative publicity and the following boycott of their merchandizes eventually forced both companies to upgrade their treatment of employees in Asia and to take responsibility of the practices of their subcontractors.

Baron first introduced the term private politics when he made a formal theory on the interaction between activists (NGOs) and private firms. Private politics is a theory of how NGOs use market mechanisms to force profit maximizing firms' into altering their practices. By initiating public boycotts of specific brands and products, the NGO hits the firm where it hurts. Reduced demand leads to decreased profits which eventually force the firm to take counter-action in order to maintain its shareholders demands for competitive profits. Whether the firm choose to fight or comply to the demands depends on the cost of altering its current practices and the credibility of the NGO's threat.

NGOs have limited resources and can only target a selected group of firms at a time. This gives firms incentives to take proactive actions and improve their practices in order to avoid being selected as targets of activist campaigns. The recent emergence of social corporate responsibility programs could be an example of firms' proactive actions to avoid being targeted by NGOs.

Baron and Diermeier (2005) argue that activists are increasingly turning to private politics to advance their agenda [5]. They claim that this is partly because of the absent success to influence politicians, and partly because international corporations have become increasingly important in global economics. My impression is that private politics is a compliment rather than a substitute for public policies. In fact, governmental policies regarding issues such as emission quotas, humanitarian aid, international trade and international conflicts has never been as influenced by NGOs as it is today. Private politics is most important in situations with weak governments and strong

corporations. In most of the western world you have strong corporations, but you also have strong governments. In the presence of governments with the power to implement and maintain laws, public policies will be more important and the need for private politics correspondingly less important.

The model I present in Chapter 3 has several similarities to the private politics literature of Baron and Diermeier. In both frameworks is there competition between conflicting parties over public sentiment, and in both cases does the media play an important role (see 2.5). There are however some essential differences. In the private politics game is the conflict of interest between an NGO and a private firm, while in my model on NGOs' impact on public policies (see Chapter3) is the conflict between two competing NGOs and an incumbent politician with preferences for the status quo policy.

2.5 Media bias

2.5.1 A technological news bias

The role of the mass media as a supplier of information has over the past few years been recognized in political economy as having impact on public politics (Swinnen and Francken, 2006) [31]. Strömberg (2002, 2004) emphasizes that if better informed voters receive favorable policies, then the mass media has policy influence since they provide voters with most of the information they use in voting[11] [30][29]. According to Strömberg is the media motivated by profits and hence concerned about maximizing sales and advertising rev-

[11]See section 2.3 for discussion on asymmetries in information between groups of voters and its impact on public policy.

enues[12]. In a formal model he shows that profit motivation combined with increasing returns to scale technology in news distribution, makes the media bias it news provision toward the interests of large groups and groups that are valuable to advertisers. This news bias in news provision eventually translates into a bias in public policies, where large groups, e.g. consumers and tax-payers, and groups valuable to advertisers, e.g young and rich, receives favorable policies due to their informational advantage.

An interesting theoretical prediction from Strömberg's paper is that the presence of a profit maximizing media contradicts the theoretical prediction of Olson (1965) [29][25]. Olson's theory says that the collective action problem is increasing with group size, which gives the perverted result that the minority will dominate the majority. A famous empirical verification of his theory is the broad appearance of tariffs on imported goods. Such a tariff gains the small group of homeland producers with concentrated benefits, and hurts the large but dispersed group of homeland consumers with diffuse costs. The producers' threshold to solve the collective action problem is relatively small, so they will be able to organize and lobby the government for tariffs. The large group of consumers however has strong incentives to free-ride on each other and subsequently fail to solve the collective action problem. Since no single consumer have strong enough incentives, or the resources, to lobby the government on their own, the preferences for low consumer prices are not lobbied on the government resulting in a policy that benefit the few. Strömberg predicts that the presence of a profit maximiz-

[12]In Europe there has been a tradition for governmentally controlled tv and radio, and newspapers aligned with political parties. This has however changed considerably over the last years, and today the assumption of a profit maximizing media with exclusively commercial interests is a plausible assumption [31].

ing media will counter this bias since it has incentives to provide information that is of interest to as large groups of readers as possible, such as consumers. Better informed voters receive more precise signals on political decisions and are therefor more responsive to politicians' actions, and consequently more powerful. It is exactly this mechanism that translates the news bias into a public policy bias.

2.5.2 Three hypothesizes about the media

Swinnen and Francken (2006) test three hypothesizes about the media [31]. Their results are based on the coverage of trade policy and globalization from three leading Belgian media organizations over the period from 1999-2002. The first hypothesis they test is referred to as the 'bad news hypothesis'. This hypothesis is verified in their data set as they find that negative news dominate positive news regarding trade and globalization. McCluskey and Swinnen (2004) make a theoretical argumentation for this hypothesis claiming it is the customers that have a higher demand for negative news rather than any inherent preference of the media [20]. Assume that there are two types of stories 'good news' and 'bad news'. 'Good news' give information to customers about people that make good decisions. The customer can in turn learn from and replicate the good news to increase its own utility. 'Bad news' on the other hand informs customers about people making wrong choices, which the customer in turn can avoid making herself. Assuming risk averse preferences and using Jensen's inequality, it is possible to show that the reader will have a higher expected utility from additional information on an issue with negative welfare effects, than from an issue that enhances

welfare. Thus the reader will demand news with a negative slant providing her with warnings.

Swinnen and Francken's second hypothesis claims that in heterogenous populations, different media organizations will emerge and have different coverage of news concerning trade and globalization. Their data set which contains the number of articles on globalization and trade summits over the period 1999-2002 shows strong evidence that the 'elite' newspaper had a much broader representation of international issues than the tabloid press[13][14]. While the Belgian quality press devoted much attention to each summit, the popular press paid in general little and biased attention to the international summits. The Genoa summit, which was characterized by massive demonstrations and violence, received two thirds of their total summit coverage, while the Doha summit was not mentioned[15].

The third hypothesis that Swinnen and Francken test is whether news coverage on globalization would be concentrated around specific 'events', and whether this concentration would be stronger in the popular press and increasing in media competition. They investigated this hypothesis by dividing coverage of globalization into three subgroups. One, information about the summit itself, two, background info on globalization, and three, information on demonstrations and violence. The results of the classification underscored their expectations, and showed that the the quality press had an approxi-

[13]The summits were respectively in Seattle, Genoa, Doha and Johannesburg

[14]By 'elite' newspaper Swinnen and Francken refer to the press that targets what they call the skilled part of the population. With 'popular' newspaper they refer to the press that targets the 'low-skilled' audience.

[15]One should notice however that -although less extreme- the 'quality' newspaper did also have a clear bias in their news representation of the Genoa summit relative to the Doha summit. Their coverage shares were respectively 38- and 17 percent.

mately equal distribution of attention to each of the categories, while the popular press devoted three fourths of its attention to demonstrations and violence, and almost none to background info on globalization. Regression analysis showed a significant positive correlation between the amount of media coverage and 'riots and demonstrations' related to globalization. This relationship was positive for all types of media, and for the popular press the coverage seemed to grow exponentially above a certain level of riots and violence.

Theories of media coverage is important for NGOs since their success in influencing policy is dependent on whether the media choose to give them attention or not. Based on Strömberg's results it follows directly that NGOs should focus on issues that have broad public interest if they are to align their own policy preferences with the preference for sales in the media. Advertising is an alternative way of getting media coverage, which does not rely on the decision of the media whether or not to present the NGOs' cause. However, most NGOs have relatively small resources, and advertising is consequently not within their feasible strategy set of ways to enforce pressure on the politician. Swinnen and Francken's support of the 'bad news hypothesis' from the Belgian media coverage of trade and globalization, indicate that the NGO would be most successful using political pressure if it emphasizes the negative consequences related to the alternative policy. Their findings indicate further that the media reacts to 'noise' which implies that NGOs should focus on making demonstrations and riots in the context of specific events[16].

[16]One could however imagine that media coverage may have adverse effect on the NGO cause if their demonstrations attract undesired elements who practice violence or other

2.5.3 An internal news bias

In contrast to the aforementioned papers Baron (2004) has a supply side explanation of news bias in the media, arguing it is a reflection of the journalists' preferences [2]. This model is in line with the common perception that journalists, on average, are politically orientated to the left. The populist right wing party Fremskrittspartiet, which was the 2nd largest party in Norway at the 2005 national election, has complained that the coverage of their politics has been negatively biased compared to the media coverage of other political parties. Annual surveys initiated by 'Mediedagene' have shown that few, if any, journalists actually vote for Fremskrittspartiet. So when Fremskrittspartiet feels discriminated in the media it is probably a just complaint?

2.5.4 A demand news bias

Mullainathan and Shleifer (2005) claim that people have bias toward news that fit with their already existing believes[17] [24]. Given this assumption their theoretical results predicts that increased competition within the media will only contribute towards a stronger slanting of news. However if the economy is populated with heterogenous people with different bias in believes, then different news organizations will serve different segments of the population, and the whole truth will be available from the aggregated media

criminal activities. This may make the NGO consider large street demonstrations as more risky and undesirable relative to other types of political activities. However to make things simple we will ignore this consideration here.

[17] A idea very similar to that of Anthony Downs in his book 'An economic theory of democracy' (1957).

representation.

2.6 Informational cascades

The theory of informational cascades is an economic theory about social learning which explains rational herd behavior. This theory, which was introduced by Bikhachandani, Hirshleifer and Welch (1992), can potentially provide us with an explanation of NGOs' political impact due to their occasional role as herd leader [1][7][9]. If an NGO's private signal about the true state on a specific issue is stronger than voters' individual signal, then the NGO's political opinion may become the consensus among the voters and subsequently influence politics[18]. In the following section I will explain the concept of informational cascades using an example related to our daily life.

Imagine there are two neighboring coffee-shops - the coffee King and the coffee Bean. The Bean serves better coffee, but this is not publicly known. Specifically, before the customer receives any information he assumes that the chances are fifty-fifty which shop serves the best coffee. However, each individual facing the choice between the two coffee-shops receives a private signal regarding which is the better coffee-shop of the King and the Bean. When an individual receives for example the private signal 'King' he updates his believes such that the probability of 'King' serving the best coffee is now $p > 1/2$[19]. In addition to the private signal individuals also observe which

[18] Actually, for the NGO to become herd leader it is sufficient that the private signal of the NGO is perceived to be stronger than the individual voter's signal.

[19] The probability p is then the posterior probability that King serves the best coffee, conditioned on that the individual had received a private signal that the King served the best coffee.

coffee-shop people before them have chosen to enter. This way there are two signals: one private, and one public.

Consider Eirik who wakes up early one morning and feels for a cup of morning coffee. He is the first customer to arrive at the scene of the two competing neighboring coffee-shops so he has no predecessors to base his choice on. However, the day before he overheard a conversation on the subway where someone spoke favorably about 'King'. This private signal updated his believes to $p > 1/2$ in favor of the 'King', and so he decides to order his coffee there. Only a few seconds later Mari comes to the neighboring coffee-shops where she sees Eirik in line at the 'King'. Mari is in doubt where to find the best coffee. She had just received a tip from a friend of hers about the coffee at the 'Bean' and believed that the 'Bean' was better with probability $p > 1/2$, but when she saw that Eirik was already in line at the 'King' she knew that he must have received some private information that contradicted the tip of her friend[20]. Mari has no reason to trust her own private signal over Eirik's, so in order to make up her mind she tosses a coin to decide which shop to enter. Let us assume that the coin landed on heads so that Mari decided to disregard her own private signal and instead get in line behind Eirik at the 'King'.

When Magnus arrives as the third customer at the scene he sees that Eirik and Mari are already in line at the 'King'. Although Magnus, like Mari, has a private signal that says 'Bean', he knows that the first one in

[20]Some might question why Mari dosen't trust her friend's tip over the information signal she got from any random guy standing in line. Well, what this example does not tell you is that Mari has had mixed results in the past when following her friend's tips, and that these experiences on average have showed out to have a probability p of being good tips.

line received private information that the "King" was better. He also knows that the second one in line either received a signal that the "Bean" was better, but tossed a coin and ended up at the "King", or alternatively, she received the signal that "King" was better and went in there just like Eirik did. Anyway, Magnus knows that it is more likely that Mari observed 'King' than 'Bean', and consequently is it rational for Magnus to disregard his own private signal and get in line at the 'King' behind the others. Magnus, as well as all succeeding customers for the rest of the day, are now locked in an informational cascade. No new private information will be revealed, because the public signal is stronger than each individual's private signal. After Mari by chance landed on the 'King' it is rational for each individual to ignore its own private signal and get in line behind the others at the King. All the people entering the shops for the rest of the day face the same decision based on the same information basis as Magnus just did, and so they all end up buying their coffee at the 'King'.

The probability of an efficient equilibrium is of course higher than the probability of an inefficient one. It may take many rounds before an informational cascade occurs, but when it happens it is more likely to be at the efficient equilibrium. NGOs are often regarded as experts within their field of interest, and are hence likely to play the role referred to in the literature as 'fashion leader' [7] [8]. Experts receives more precise information signal than others, and are therefore more capable of making good decisions independently of others. A strong private signal reduce the incentives to copy other's actions, and increase the incentive to act independently of others. Since some NGOs are regarded as expert organizations it can give them an

influential role as agenda setters. When issues are complex and information is costly to acquire, there is a strong incentive to free-ride on the information of others. Imagine that an NGO which is publicly perceived as an expert organization goes to the media with a policy proposal on a certain issue. If the NGOs' private information signal is perceived to be sufficiently strong, it will be rational for all succeeding people to agree with the NGO in lack of any other information. This will make the NGO 'herd leader', and create a political consensus in accordance with what the NGO says.

Chapter 3

The game

NGOs target politicians because politicians have the power to implement public policies desired by the NGO. However, for an incumbent politician to comply to the NGO's policy demands it is decisive that the NGO is perceived as legitimate. In a democracy, legitimacy means that you represent the public, in this model represented by the median voter[1]. Within democracies there is a clear tendency that competing political parties converge toward the same policies. The political platform differs between democracies because the median voter have different preferences in different countries. Political candidates care for reelection but are also citizens with their own individual preferred policies. One can therefore make the realistic assumption that politicians have both partisan and opportunistic preferences.

Imagine a political party that goes to election with a portfolio of specific

[1]Mueller (1989) states: 'if θ is a single-dimensional issue, and all voters have single-peaked preferences defined over θ, then θ_m, the median position, cannot lose under majority rule' [23]. Although θ may have multiple dimension in our model, we assume that these dimensions can be mapped into a single dimension on which voters have single-peaked preferences.

policy proposals in their party programme. During an election campaign there are some issues that are debated, while others are not given any attention at all. For voters to get an impression of a party's politics it is important that the policies that are debated during the election campaign can be related to voters' individual experiences. An issue is considered complex when it has many dimensions and hence no clear cut answer to it. That is, when an issue is complex, the private signals are weak and the voters are not conscious about their own preferred policies. My statement goes as follows: the more complex an issue is, the less likely it is that it will be a 'high profile' issue during the election campaign. This is because the politician's stand on such an issue does not give the voter any information whether or not it should support the politician, and consequently are complex issues not interesting in an electoral campaign. Taking this reasoning into account, politicians will only align its policies with the median voters preferences if the issue has great risk of being debated in the election. Complex issues are however rarely debated during campaigns, leaving a scope for the politicians to implement their own preferred policy on these issues. There are basically two reasons for this: the first is the one mentioned above, the other is that the politician's knowledge about the median's preferences is decreasing in an issue's complexity. It is therefore not only that the politician sees its chance to get its own policy preferences implemented, it is also because the politician simply does not know the median voter's preferences, or the median voter simply does not know its own preferences on the issue. Since the politician does not know the preferences of the median, the best it can do is to suggest its own preferred policy.

As a point of departure let us assume that we deal with a complex issue that has not been debated during the electoral campaign, but which has a specific policy in the incumbent's party programme. Given this situation we want to analyze how the distribution of resources among the NGOs' play a role in their respective choice of strategy. Furthermore we want to investigate how the distance of the NGOs preferred policy to that of the incumbent's party programme policy is decisive for the strategy choice of the NGO. Other interesting parameters that will affect which strategy combination is an equilibrium is the degree of complexity of the issue, as well as how interesting the issue is to the public.

3.1 Political pressure versus informational lobbying

3.1.1 A formal model

Our economy is populated by two NGOs, NGO_1 and NGO_0, which have diametrically extreme policy preferences. The policy θ is $\in [0, 1]$, where NGO_1's preferred policy is $\theta_p = 1$, while NGO_0 prefers $\theta_p = 0$ (see figure 3.1). The party programme policy, θ', is located somewhere on the policy scale 3.1 dependent on the incumbent's policy preferences.

Consistent with their aforementioned preferences, the NGOs' utility func-

Figure 3.1: Policy scale

tions are respectively

$$\pi_0 = 1 - \theta_p \tag{3.1}$$

$$\pi_1 = \theta_p \tag{3.2}$$

were NGO_0's utility is a linearly decreasing function of the level of the party programme policy θ_p, while NGO_1's utility is a linearly increasing function of the same variable. Conflicting interests make the NGOs compete over influence on public policy. Both NGOs can choose between *informational lobbying* (I) or *political pressure* (P) as means to make the incumbent sway the policy in their preferred direction.

The NGOs' budgets are given by the function

$$I_1 \leq \alpha I \tag{3.3}$$

$$I_0 \leq (1 - \alpha) I \tag{3.4}$$

where $I_0 + I_1 = I$, which is the total amount of resources available to the

NGOs. $I_1 - I_0 = (2\alpha - 1)$ is a measure of the relative resource power of the competing NGOs, where I is normalized to one. By assumption NGO_1 has more access to resources than NGO_0. This means that we only look at values of $\frac{1}{2} \leq \alpha < 1$. The more funds available, the more informational lobbying can the NGO buy. Similar to the standard model of costly lobbying the likeliness that the NGO will get a favorable response by the political decision-maker increase with the NGO's investment in informational lobbying [16]. Investment in lobbying influences the politician according to the following function:

$$\begin{aligned} g(\alpha, \theta') &= (I_1 - I_0)(1 - \theta')\theta' \\ &= \begin{cases} (2\alpha - 1)(1 - \theta')\theta' & \text{if LL} \\ -(1 - \alpha)(1 - \theta')\theta' & \text{if LP} \\ \alpha(1 - \theta')\theta' & \text{if PL} \\ 0 & \text{if PP} \end{cases} \end{aligned} \tag{3.5}$$

If both NGOs choose informational lobbying then NGO_1 will win since it has more resources to utilize on convincing arguments ($2\alpha - 1 > 0$). If for example NGO_0 choose informational lobbying and NGO_1 choose political pressure then NGO_0 will have monopoly on informational lobbying and NGO_1 must abstain from using its available resources. The impact informational lobbying has on policy is dependent on the deviation of the party programme policy from the NGOs preferred policy (see figure 3.2). We see from figure 3.2 that the policy's responsiveness to informational lobbying is symmetric around $\theta' = \frac{1}{2}$, and that for values of $\theta' < \frac{1}{2}$ the policy's responsiveness is an increasing function of θ', while for $\theta' > \frac{1}{2}$ the responsiveness is

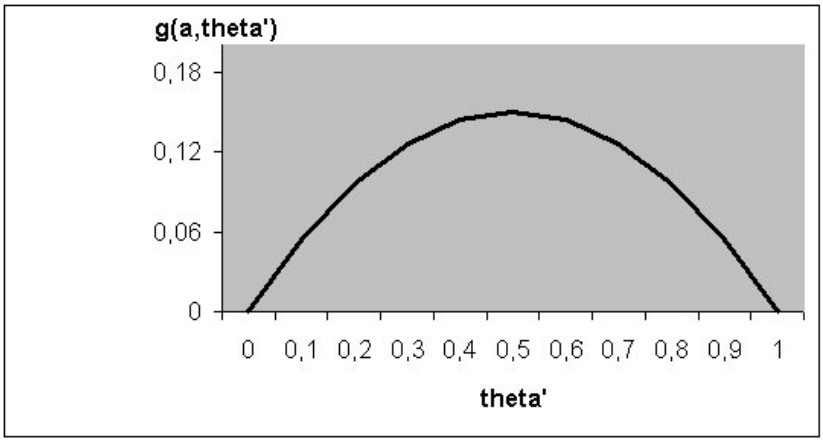

Figure 3.2: Responsiveness of policy as a function of informational lobbying for $\alpha = 0.8$ given LL

decreasing in θ'. The intuition is as following: when the interest of conflict between the incumbent and the NGO is large, the incumbent is reluctant to change its point of view from informational lobbying. As the conflict of interest decreases the incumbent gradually becomes more sensitive to the NGO's arguments. That informational lobbying is most effective on policy when the incumbent has policy preferences in the middle of the policy scale is a credible assumption, since the politician in this situation is indifferent between which way it moves. Political candidates that have policy preferences similar to that of the NGO will be increasingly reluctant to the NGO's argument since it means moving in a more extreme policy direction.

The NGOs must decide whether to specialize in informational lobbying or political pressure. If the NGO choose to perform political pressure it will receive media coverage according to the function

$$c_i = s(\theta_i - \theta')^2 \tag{3.6}$$

$\mid \Delta\theta_i \mid$ measures NGO_i's preferred policy's distance from the party programme policy, θ'. The amount of media coverage, c_i, which NGO_i receives from the media, is assumed to be an exponentially increasing function of this distance. This implies that the NGO with the largest conflict of interest with the incumbent will have a better chance of success in political pressure. The basis for such a functional relationship is the propensity towards 'bad news' in the media. The parameter s describes to which degree the issue at hand is of interest to the public. Issues of little interest to the public will have difficulties getting substantial media coverage. Political pressure is a powerful tool since it under the right circumstances can give the NGO influence on the median voter's preferred policy. In other words, the median voter's preferred policy is endogenously determined. The impact on the median voter's preferred policy is dependent on the equilibrium strategy combination

$$\begin{aligned} \Delta\bar{\theta} &= x(c_1 - c_2) \\ &= \begin{cases} sx(1-2\theta') & \text{if PP} \\ sx(1-\theta')^2 & \text{if LP} \\ -sx\theta'^2 & \text{if PL} \\ 0 & \text{if LL} \end{cases} \end{aligned} \tag{3.7}$$

$\Delta\bar{\theta}$ is the median voter's policy response to the public media signal. As we see, the responsiveness of the median voter's preferred policy is a function of the public interest, s, the distance of the NGOs preferred policy to the party programme policy,$\mid \Delta\theta_i \mid$, and the complexity of the issue x. $x \in [0,1]$ is a parameter increasing with the issues complexity. The more complex the issue the weaker are voters' private information signals. Weak private signals

increase the probability that the NGO can start an informational cascade via the media. If none of the NGOs decide to use political pressure there will be no attention given to the party programme policy, and the median voter does not move.

The incumbent has, as mentioned before, both opportunistic and partisan preferences. On one hand it cares about the policies stated in its party programme and convincing arguments supplied through informational lobbying. On the other hand it wants to be reelected. Whichever way the median voter moves the incumbent has incentives to follow. The incumbent's preferences can be expressed as a loss function which it wants to minimize with respect to its final policy decision θ_p.

$$L = (1-s)(\theta_p - \theta' - g(\alpha, \theta'))^2 + s(\theta_p - \theta' - \Delta\bar{\theta})^2 \tag{3.8}$$

The first expression, weighted with $1-s$, tells us that its painful for the incumbent to let the final policy θ_p deviate from the party programme policy θ' and the convincing arguments it receives through informational lobbying $g(\alpha, \theta')$. The fact that the party programme policy and the response function to informational lobbying is put together can be interpreted as if informational lobbying has the power to change the ideology of the incumbent. The second expression, weighted with s, states that it is painful for the incumbent to deviate from the movement of median voters preferred policy. This is due to the risk of not being reelected. The parameter s indicates the degree of public interest on the specific issue. If the public interest on the issue is large, then this issue may be pivotal in the next election, and hence does the incumbent emphasize the importance of not deviating from the median

voter's preferred policy. This means that political pressure will be effective relative to informational lobbying when the public interest concerning the issue is large.

To find the incumbent's policy function we minimize the loss function with respect to θ_p. What the optimal policy function will be is dependent on which strategy combination is chosen by the NGOs in equilibrium. We will therefore get four different first order conditions, and correspondingly four policy functions. The respective policy function is the incumbent's best reply to the given combination of strategies.

The first order conditions are found by minimizing the incumbent's loss function (equation 3.8) subject to political pressure's influence on the median voter (equation 3.7)) and the informational lobbying function (equation 3.5). Solving these four minimization problem we get the following policy functions:

$$\theta_p(LL) = \theta' + (1-s)(2\alpha - 1)(1-\theta')\theta' \tag{3.9}$$

$$\theta_p(LP) = \theta' - (1-s)(1-\alpha)(1-\theta')\theta' + s^2 x(1-\theta')^2 \tag{3.10}$$

$$\theta_p(PL) = \theta' + (1-s)\alpha(1-\theta')\theta' - s^2 x\theta'^2 \tag{3.11}$$

$$\theta_p(PP) = \theta' + s^2 x(1-2\theta') \tag{3.12}$$

The policy functions are the incumbent's best response to any strategy combination of the NGOs[2]. Since the NGOs know the incumbent's utility function, they also know the incumbent's policy function. The NGOs' utilities are functions of the final policy. The incumbent's policy function is therefore

[2]All the second order conditions are strictly positive so we know that the policy functions are global optimums to the incumbent's loss function.

a basis for finding the respective NGO's optimal strategy choice given the choice of its competitor.

3.1.2 Static one-period game

The timing in the model is as follows: 1) a party programme policy θ' is picked by nature corresponding to the incumbent's individual preferences, 2) both NGOs decide whether to spend money on information lobbying or to use political pressure. 3) The incumbent takes the NGOs' actions into account and decides the final level of the public policy θ_p. An illustration of the game is given in figure 3.3

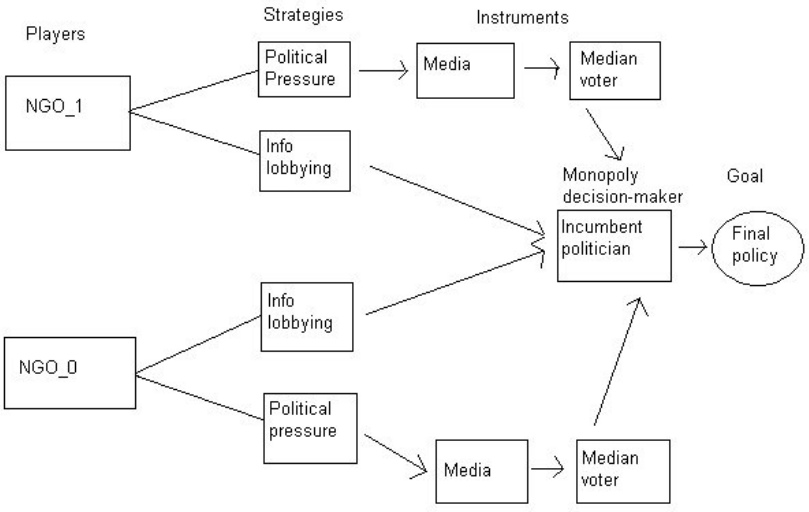

Figure 3.3: The game

Given the incumbent's policy rule, the NGOs simultaneously choose whether to use informational lobbying (L) or political pressure (P)[3]. By applying the

[3]The strategy decisions must not actually be taken simultaneously. It is sufficient that

method of iterated elimination of dominated strategies we find the equilibrium where each NGO's strategy choice is the best response to the others strategy. This is a Nash equilibrium (NE) if none of the players have incentives to unilaterally deviate from their chosen strategy. Formally we say that each of the NGOs can choose a strategy s which is part of the strategy set, $S \in [L, P]$.

To use the method of iterated elimination we need first to calculate the payoffs for the four pairs of strategy combinations that we have. The NGOs' payoffs are calculated by inserting the correct policy function (3.9-3.12) into the utility function of the respective agent (3.2 and 3.1). The NGOs' payoffs for different strategy combinations for the static *Lobby-Pressure-game* are presented in table 3.1.

3.1.3 Finding the dominant strategy

In order to find the equilibrium we use iterated elimination of dominated strategies, which gives us four pairs of incentive constraints. This is done by comparing deviation payoffs with payoffs from staying for both players (see table 3.2 for a normal for representation). If the incentive constraint for both NGOs are simultaneously fulfilled, then the strategy combination is a Nash equilibrium.

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the NGO's decision is made without knowledge of the other NGO's decision.

Table 3.1: Payoffs

Player	Strategy combination	Payoff
0	L, L	$\pi^0_{LL} = 1 - \theta' - (1-s)(2\alpha - 1)(1-\theta')\theta'$
1	L, L	$\pi^1_{LL} = \theta' + (1-s)(2\alpha - 1)(1-\theta')\theta'$
0	L, P	$\pi^0_{LP} = 1 - \theta' + (1-s)(1-\alpha)(1-\theta')\theta' - s^2x(1-\theta')^2$
1	L, P	$\pi^1_{LP} = \theta' - (1-s)(1-\alpha)(1-\theta')\theta' + s^2x(1-\theta')^2$
0	P, L	$\pi^0_{PL} = 1 - \theta' - (1-s)\alpha(1-\theta')\theta' + s^2x\theta'^2$
1	P, L	$\pi^1_{PL} = \theta' + (1-s)\alpha(1-\theta')\theta' - s^2x\theta'^2$
0	P, P	$\pi^0_{PP} = 1 - \theta' - s^2x(1-2\theta')$
1	P, P	$\pi^1_{PP} = \theta' + s^2x(1-2\theta')$

Table 3.2: Payoff matrix

		NGO_0	
		L	P
NGO_1	L	π^0_{LL},π^1_{LL}	π^0_{PL},π^1_{PL}
	P	π^0_{LP},π^1_{LP}	π^0_{PP},π^1_{PP}

Incentive constraints for equilibrium LL

$$\begin{aligned} \pi^0_{LL} &> \pi^0_{PL} \\ (1-s)(1-\alpha)(1-\theta')\theta' &> s^2x\theta'^2 \end{aligned} \tag{3.13}$$

$$\begin{aligned} \pi^1_{LL} &> \pi^1_{LP} \\ (1-s)\alpha(1-\theta')\theta' &> s^2x(1-\theta')^2 \end{aligned} \tag{3.14}$$

Incentive constraints for equilibrium LP

$$\begin{aligned} \pi^0_{LP} &> \pi^0_{PP} \\ (1-s)(1-\alpha)(1-\theta')\theta' &> s^2 x\theta'^2 \qquad (3.15) \\ \pi^1_{LP} &> \pi^1_{LL} \\ s^2 x(1-\theta')^2 &> (1-s)\alpha(1-\theta')\theta' \qquad (3.16) \end{aligned}$$

Incentive constraints for equilibrium PL

$$\begin{aligned} \pi^0_{PL} &> \pi^0_{LL} \\ s^2 x\theta'^2 &> (1-s)(1-\alpha)(1-\theta')\theta' \qquad (3.17) \\ \pi^1_{PL} &> \pi^1_{PP} \\ (1-s)\alpha(1-\theta')\theta' &> s^2 x(1-\theta')^2 \qquad (3.18) \end{aligned}$$

Incentive constraints for equilibrium PP

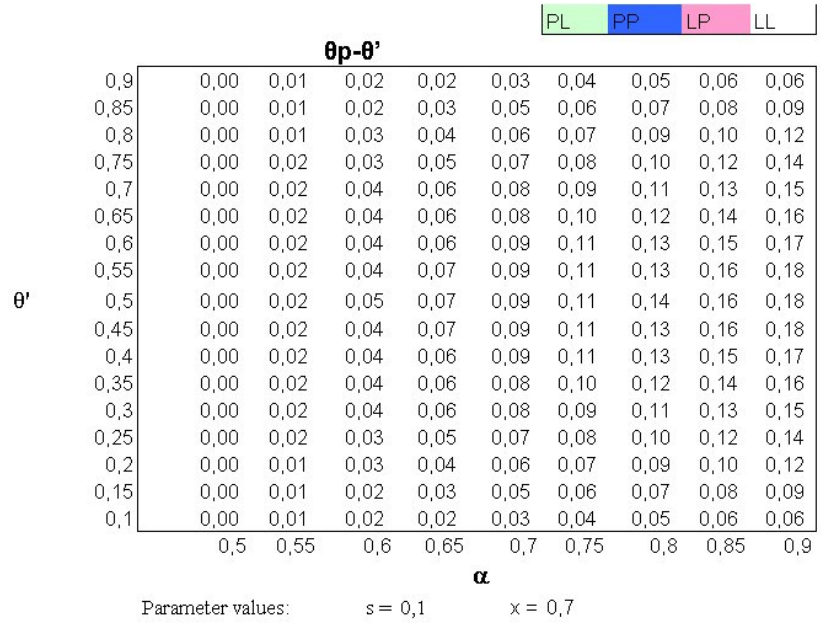
$$\begin{aligned} \pi^0_{PP} &> \pi^0_{LP} \\ s^2 x\theta'^2 &> (1-s)(1-\alpha)(1-\theta')\theta' \qquad (3.19) \\ \pi^1_{PP} &> \pi^1_{PL} \\ s^2 x(1-\theta')^2 &> (1-s)\alpha(1-\theta')\theta' \qquad (3.20) \end{aligned}$$

3.1.4 Characterization of equilibrium

I will now present the different equilibrium strategy combinations and the changes in the final policy's deviation from the party programme policy as I vary strategic parameters.

s=0.1 while x=0.7

We start of finding the equilibrium combinations for an issue which is of little public interest but relatively complex, s=0.1, and $x = 0.7$. From figure 3.4 we see that when the public interest is small, s=0.1, LL is the equilibrium strategy combination independently of relative wealth, α, or level of party programme policy, θ'[4]. LL is the only equilibrium when the public interest



θ' \ α	0,5	0,55	0,6	0,65	0,7	0,75	0,8	0,85	0,9
0,9	0,00	0,01	0,02	0,02	0,03	0,04	0,05	0,06	0,06
0,85	0,00	0,01	0,02	0,03	0,05	0,06	0,07	0,08	0,09
0,8	0,00	0,01	0,03	0,04	0,06	0,07	0,09	0,10	0,12
0,75	0,00	0,02	0,03	0,05	0,07	0,08	0,10	0,12	0,14
0,7	0,00	0,02	0,04	0,06	0,08	0,09	0,11	0,13	0,15
0,65	0,00	0,02	0,04	0,06	0,08	0,10	0,12	0,14	0,16
0,6	0,00	0,02	0,04	0,06	0,09	0,11	0,13	0,15	0,17
0,55	0,00	0,02	0,04	0,07	0,09	0,11	0,13	0,16	0,18
0,5	0,00	0,02	0,05	0,07	0,09	0,11	0,14	0,16	0,18
0,45	0,00	0,02	0,04	0,07	0,09	0,11	0,13	0,16	0,18
0,4	0,00	0,02	0,04	0,06	0,09	0,11	0,13	0,15	0,17
0,35	0,00	0,02	0,04	0,06	0,08	0,10	0,12	0,14	0,16
0,3	0,00	0,02	0,04	0,06	0,08	0,09	0,11	0,13	0,15
0,25	0,00	0,02	0,03	0,05	0,07	0,08	0,10	0,12	0,14
0,2	0,00	0,01	0,03	0,04	0,06	0,07	0,09	0,10	0,12
0,15	0,00	0,01	0,02	0,03	0,05	0,06	0,07	0,08	0,09
0,1	0,00	0,01	0,02	0,02	0,03	0,04	0,05	0,06	0,06

Figure 3.4: Equilibrium s=0.1, x=0.7

[4]This is seen from figure 3.4 by observing that all cells are 'colored' white.

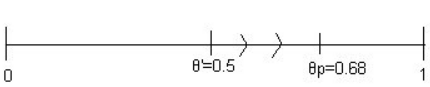


Figure 3.5: s=0.1,x=0.7,α=0.9,θ'=0.5

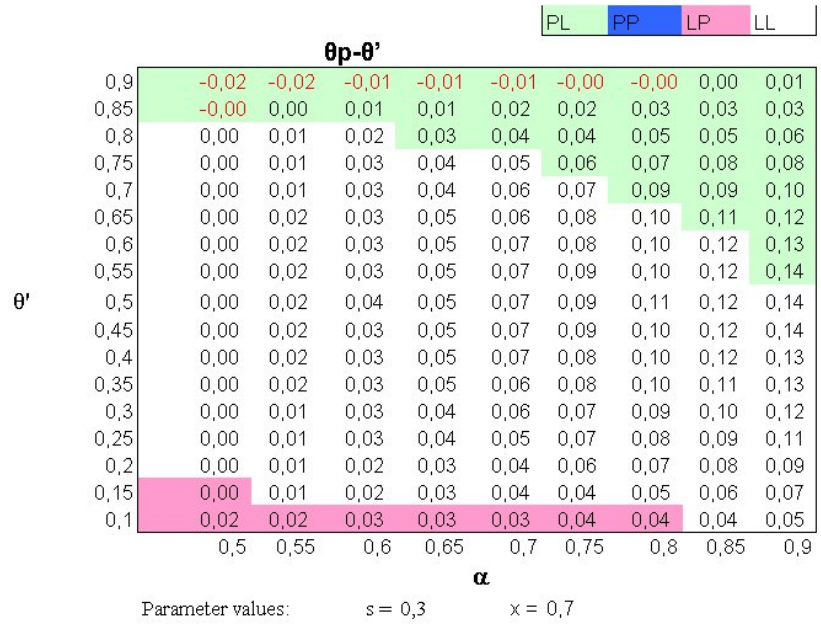
Figure 3.6: s=0.1,x=0.7,α=0.9,θ'=0.1

is small, partly because the media is not interested in giving the NGOs any coverage, and partly because the incumbent does not emphasize the median voter's preferred policy. From figure 3.4 we see that all cell values are positive regardless of which value θ' takes on, which means that the final policy is moved in the direction of NGO_1's preferred policy. This result arise from the fact that both NGOs apply informational lobbying in equilibrium and the assumption that NGO_1 is richer than NGO_0 ($\alpha > \frac{1}{2}$). From figure 3.5 and 3.6 we see that the impact on policy for NGO_1 is largest for middle values of θ'. This is due to the shape of the response function of informational lobbying (see figure 3.2).

s=0.3 while x=0.7

Increasing the public interest from s=0.1 to s=0.3, and holding x fixed, we se from figure 3.7 that there are now three types of equilibrium strategy combinations, PL, LL and LP. Which strategy combination is the equilibrium one depends on the values of θ' and α. For low values of θ' and α, NGO_1 prefers political pressure, while for high values of θ' and all values α, NGO_0 prefers political pressure[5]. This tells us that even if the party programme policy,

[5]This is seen from figure 3.7 by observing that for low values of θ' and α, the cells are colored red, while for high values of θ' and α the cells are colored green. Negative cell values imply that the final policy level is moved in the preferred direction of NGO_0.



θ' \ θp-θ'	-0,02	-0,02	-0,01	-0,01	-0,01	-0,00	-0,00	0,00	0,01
0,9									
0,85	-0,00	0,00	0,01	0,01	0,02	0,02	0,03	0,03	0,03
0,8	0,00	0,01	0,02	0,03	0,04	0,04	0,05	0,05	0,06
0,75	0,00	0,01	0,03	0,04	0,05	0,06	0,07	0,08	0,08
0,7	0,00	0,01	0,03	0,04	0,06	0,07	0,09	0,09	0,10
0,65	0,00	0,02	0,03	0,05	0,06	0,08	0,10	0,11	0,12
0,6	0,00	0,02	0,03	0,05	0,07	0,08	0,10	0,12	0,13
0,55	0,00	0,02	0,03	0,05	0,07	0,09	0,10	0,12	0,14
0,5	0,00	0,02	0,04	0,05	0,07	0,09	0,11	0,12	0,14
0,45	0,00	0,02	0,03	0,05	0,07	0,09	0,10	0,12	0,14
0,4	0,00	0,02	0,03	0,05	0,07	0,08	0,10	0,12	0,13
0,35	0,00	0,02	0,03	0,05	0,06	0,08	0,10	0,11	0,13
0,3	0,00	0,01	0,03	0,04	0,06	0,07	0,09	0,10	0,12
0,25	0,00	0,01	0,03	0,04	0,05	0,07	0,08	0,09	0,11
0,2	0,00	0,01	0,02	0,03	0,04	0,06	0,07	0,08	0,09
0,15	0,00	0,01	0,02	0,03	0,04	0,04	0,05	0,06	0,07
0,1	0,02	0,02	0,03	0,03	0,03	0,04	0,04	0,04	0,05
α	0,5	0,55	0,6	0,65	0,7	0,75	0,8	0,85	0,9

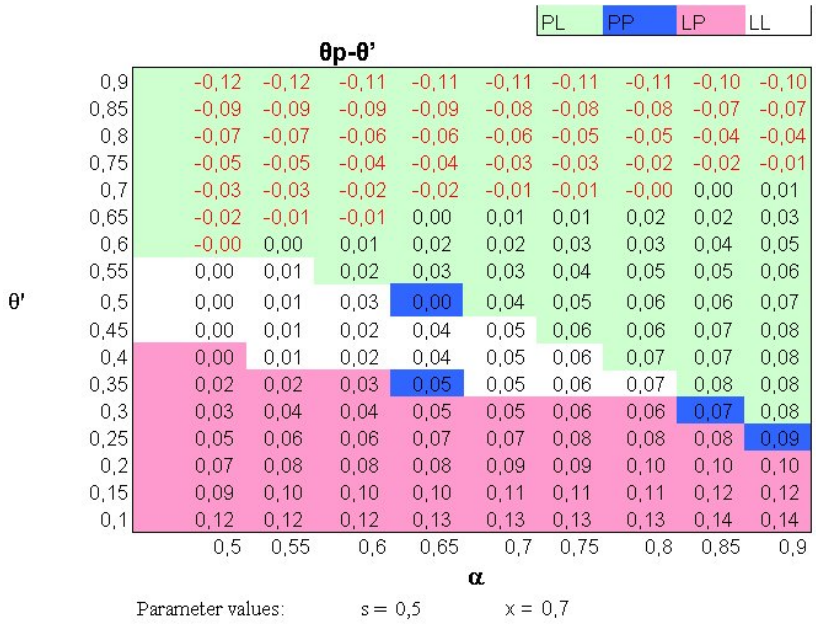
Figure 3.7: Equilibrium: s=0.3, x=0.7

θ', takes on extreme values, it may be optimal for NGOs to choose political pressure if the public interest is relatively low. However we see from figure 3.7 that access to resources is still decisive for the final policy level, and that NGO_1 will move the final policy in its preferred direction for approximately all values of θ' and α. NGO_0's propensity to use political pressure increase as its resource endowments deteriorates with increasing values of α from left to right in figure 3.7. Only when θ' is close to NGO_1's preferred policy, and the resources are not too skewed distributed, will NGO_0 manage to move the final policy in its preferred direction[6]. However, LL is still, as in figure 3.4, the dominating equilibrium strategy combination. This is because the policy response to political pressure is low when the public interest is low.

[6]this can be seen from the negative cell-values on from the top of figure 3.7.

s=0.5 while x=0.7

Setting $s = \frac{1}{2}$, while still holding x fixed, we observe from figure 3.8 that the picture changes dramatically. All four strategy combinations are now represented as equilibriums, and PL has become the dominating equilibrium strategy combination. From figure 3.8 we see that NGO_0 use political pres-



θ' \ α	0,5	0,55	0,6	0,65	0,7	0,75	0,8	0,85	0,9
0,9	-0,12	-0,12	-0,11	-0,11	-0,11	-0,11	-0,11	-0,10	-0,10
0,85	-0,09	-0,09	-0,09	-0,09	-0,08	-0,08	-0,08	-0,07	-0,07
0,8	-0,07	-0,07	-0,06	-0,06	-0,06	-0,05	-0,05	-0,04	-0,04
0,75	-0,05	-0,05	-0,04	-0,04	-0,03	-0,03	-0,02	-0,02	-0,01
0,7	-0,03	-0,03	-0,02	-0,02	-0,01	-0,01	-0,00	0,00	0,01
0,65	-0,02	-0,01	-0,01	0,00	0,01	0,01	0,02	0,02	0,03
0,6	-0,00	0,00	0,01	0,02	0,02	0,03	0,03	0,04	0,05
0,55	0,00	0,01	0,02	0,03	0,03	0,04	0,05	0,05	0,06
0,5	0,00	0,01	0,03	0,00	0,04	0,05	0,06	0,06	0,07
0,45	0,00	0,01	0,02	0,04	0,05	0,06	0,06	0,07	0,08
0,4	0,00	0,01	0,02	0,04	0,05	0,06	0,07	0,07	0,08
0,35	0,02	0,02	0,03	0,05	0,05	0,06	0,07	0,08	0,08
0,3	0,03	0,04	0,04	0,05	0,05	0,06	0,06	0,07	0,08
0,25	0,05	0,06	0,06	0,07	0,07	0,08	0,08	0,08	0,09
0,2	0,07	0,08	0,08	0,08	0,09	0,09	0,10	0,10	0,10
0,15	0,09	0,10	0,10	0,10	0,11	0,11	0,11	0,12	0,12
0,1	0,12	0,12	0,12	0,13	0,13	0,13	0,13	0,14	0,14

Figure 3.8: Equilibrium: s=0.5, x=0.7

sure even for low values of the programme policy θ', and increasingly so as its total share of resources decrease as α increases from left to right in figure 3.8. When α=0.9, we observe from figure 3.8 that NGO_0 prefers political pressure for such low values of θ' as $\frac{1}{4}$. The most interesting implication is, however, found in the top corner of figure 3.8. Here we find the surprising theoretical prediction that even though NGO_1's access to resources is superior to that of NGO_0 (α close to one), NGO_0 manages to push the final policy in its

preferred direction (see figure 3.9 for an illustration). The intuition behind this result is that although the public interest is in the middle range, the media considers the conflict of interest between the incumbent and NGO_0 as sensational bad news. NGO_0's policy stand is consequently provided with sufficiently media coverage so that it affects the median voter's preferred policy, which in turn induce the incumbent to change the final policy decision in favor of NGO_1. The realistic assumption that informational lobbying is less effective when the programme policy and the NGO's preferred policy are already very similar contributes to the surprising result (see figure 3.2). The result from figure 3.9 is interesting since it implies that in a world where

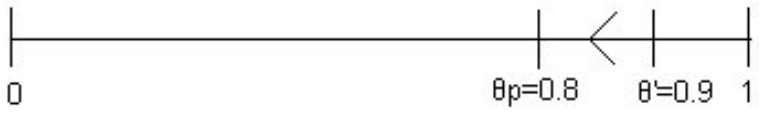


Figure 3.9: s=0.5, x=0.7, $\alpha = 0.9$

the media is present and the public interest on the issue is relatively high, NGOs' impact on policy will be larger the larger the interest of conflict between the incumbent politician and the NGO. This result contradicts Potters and van Winden's (1992) theoretical prediction that the favorable response of decision-makers is decreasing with the conflict of interest. The reason that they get a different result is that they do not incorporate the media into their

theory. If we go back to figure 3.4 we see that our results resembles Potters and van Winden's when the public interest of the issue is low, which is that policy impact increase with resources spend on lobbying.

s=0.6 while x=0.7

When turning s up an additional notch, we see from figure 3.10 that LL is no longer an equilibrium strategy combination. From figure 3.10 we se that the absolute policy changes are almost symmetric on both sides of $\theta' = \frac{1}{2}$. This implies that access to resources plays a decreasing role for the policy outcome. Although NGO_1 has considerably more resource power than NGO_0, it does not give NGO_1 any significant advantage when it comes to influencing the final policy. Due to the functional form of the influence of political pressure, we see from figure 3.10 that the distance between the final policy and the party programme policy is larger the stronger the conflict of interest between the NGO and the incumbent (for a specific example compare figure 3.11 and 3.12). Although the relative endowment of resources plays a decreasing role in the competition between the NGOs as we increase the public interest, α still has influence on which strategy combination is preferred in equilibrium. From 3.10 we observe that as α increases from left to right, NGO_1 gradually prefers informational lobbying to political pressure for decreasingly low values of θ'. Similarly, as we move from left to right in figure 3.10 for increasing values of α, we observe that NGO_0's propensity to use political pressure relative to informational lobbying gradually increases for lower values of θ' . This observation from figure 3.10 implies that a change in NGOs' relative resources endowment, has a stronger effect on the preferred

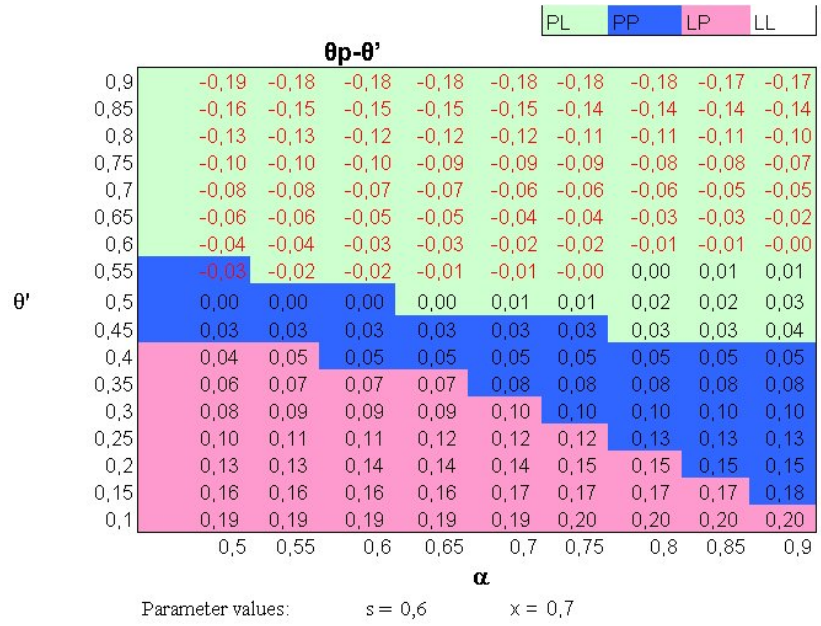


Figure 3.10: Equilibrium s=0.6, x=0.7

equilibrium strategy combination, than a correspondingly change in the party programme policy. From figure 3.10 we recognize the same interesting result as in 3.8 that the policy may move in favor of NGO_0, even though NGO_1 has the lion's share of the available resources. From figure 3.11 we see that the result is even more prominent than in figure 3.9. In fact, the policy change is in favor of NGO_0 for all values of $\theta' > 0.55$.

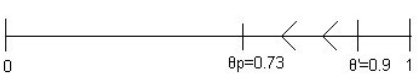


Figure 3.11: s=0.6,x=0.7,α=0.9,θ'=0.9

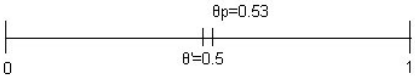


Figure 3.12: s=0.6,x=0.7,α=0.9,θ'=0.5

s ∈[0.7-1.0] while x=0.7

As we continue to increase the public interest s we see from figure 3.13-3.16, that the strategy combination PP becomes increasingly dominant for all values of θ' and α. When $s = 0.9$, there are no longer any equilibrium combinations that gives NGO_1 a comparative advantage of being richer than NGO_0. When $s = 1$ the incumbent will put zero weight on informational lobbying, and hence will both NGOs exclusively use political pressure in equilibrium.

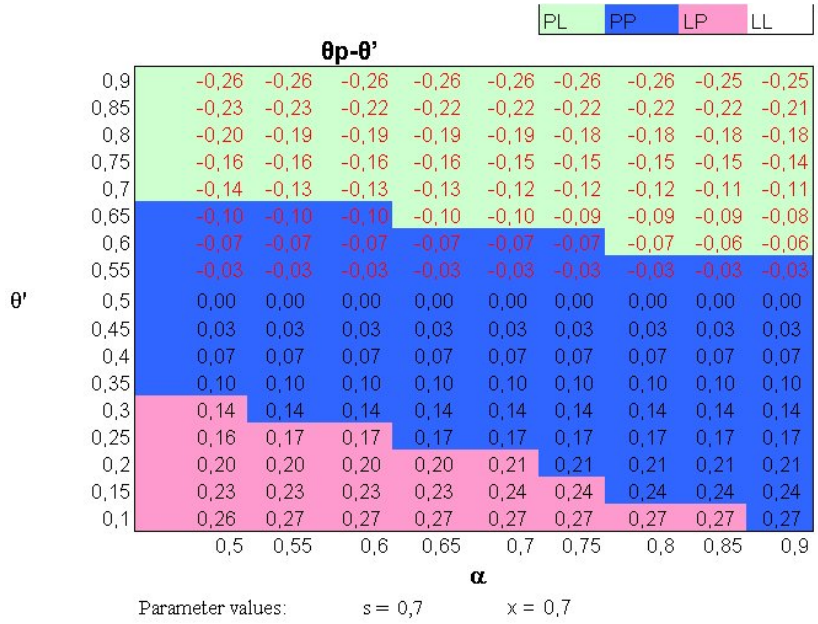
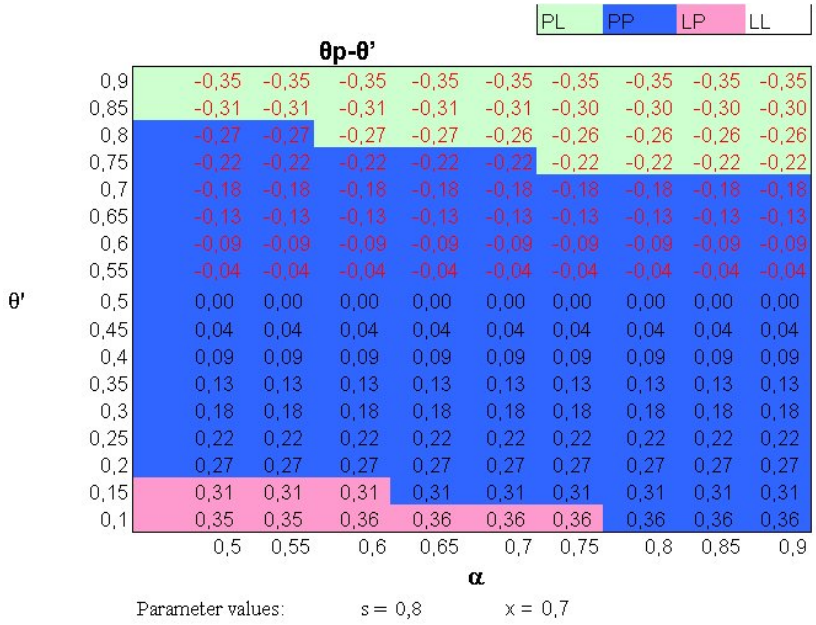


Figure 3.13: Equilibrium s=0.7, x=0.7

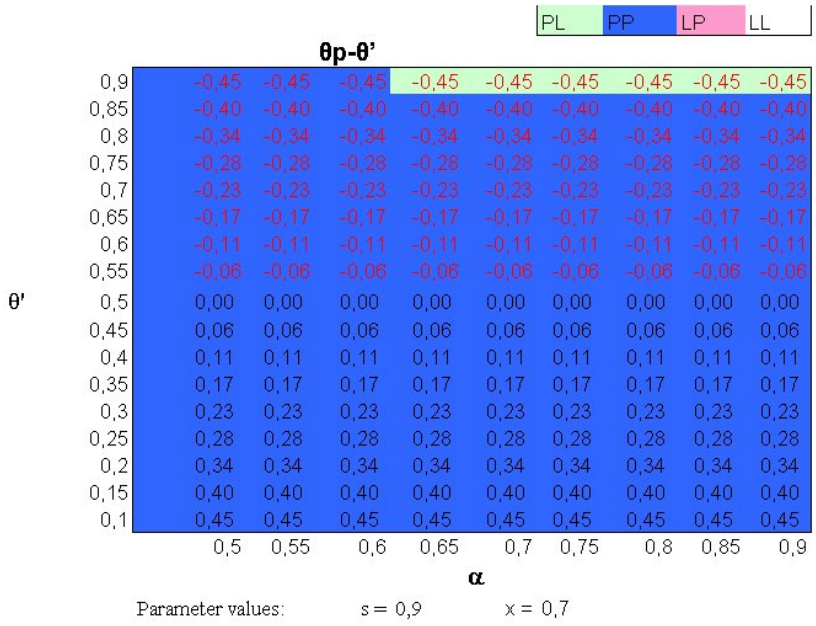
x=0 while s=0.7

We now want to investigate the equilibrium strategy combinations and the effects on the final policy level as we vary the complexity of the issue, while



θ' \ α	0,5	0,55	0,6	0,65	0,7	0,75	0,8	0,85	0,9
0,9	-0,35	-0,35	-0,35	-0,35	-0,35	-0,35	-0,35	-0,35	-0,35
0,85	-0,31	-0,31	-0,31	-0,31	-0,31	-0,30	-0,30	-0,30	-0,30
0,8	-0,27	-0,27	-0,27	-0,27	-0,26	-0,26	-0,26	-0,26	-0,26
0,75	-0,22	-0,22	-0,22	-0,22	-0,22	-0,22	-0,22	-0,22	-0,22
0,7	-0,18	-0,18	-0,18	-0,18	-0,18	-0,18	-0,18	-0,18	-0,18
0,65	-0,13	-0,13	-0,13	-0,13	-0,13	-0,13	-0,13	-0,13	-0,13
0,6	-0,09	-0,09	-0,09	-0,09	-0,09	-0,09	-0,09	-0,09	-0,09
0,55	-0,04	-0,04	-0,04	-0,04	-0,04	-0,04	-0,04	-0,04	-0,04
0,5	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
0,45	0,04	0,04	0,04	0,04	0,04	0,04	0,04	0,04	0,04
0,4	0,09	0,09	0,09	0,09	0,09	0,09	0,09	0,09	0,09
0,35	0,13	0,13	0,13	0,13	0,13	0,13	0,13	0,13	0,13
0,3	0,18	0,18	0,18	0,18	0,18	0,18	0,18	0,18	0,18
0,25	0,22	0,22	0,22	0,22	0,22	0,22	0,22	0,22	0,22
0,2	0,27	0,27	0,27	0,27	0,27	0,27	0,27	0,27	0,27
0,15	0,31	0,31	0,31	0,31	0,31	0,31	0,31	0,31	0,31
0,1	0,35	0,35	0,36	0,36	0,36	0,36	0,36	0,36	0,36

Figure 3.14: Equilibrium s=0.8, x=0.7



θ' \ α	0,5	0,55	0,6	0,65	0,7	0,75	0,8	0,85	0,9
0,9	-0,45	-0,45	-0,45	-0,45	-0,45	-0,45	-0,45	-0,45	-0,45
0,85	-0,40	-0,40	-0,40	-0,40	-0,40	-0,40	-0,40	-0,40	-0,40
0,8	-0,34	-0,34	-0,34	-0,34	-0,34	-0,34	-0,34	-0,34	-0,34
0,75	-0,28	-0,28	-0,28	-0,28	-0,28	-0,28	-0,28	-0,28	-0,28
0,7	-0,23	-0,23	-0,23	-0,23	-0,23	-0,23	-0,23	-0,23	-0,23
0,65	-0,17	-0,17	-0,17	-0,17	-0,17	-0,17	-0,17	-0,17	-0,17
0,6	-0,11	-0,11	-0,11	-0,11	-0,11	-0,11	-0,11	-0,11	-0,11
0,55	-0,06	-0,06	-0,06	-0,06	-0,06	-0,06	-0,06	-0,06	-0,06
0,5	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
0,45	0,06	0,06	0,06	0,06	0,06	0,06	0,06	0,06	0,06
0,4	0,11	0,11	0,11	0,11	0,11	0,11	0,11	0,11	0,11
0,35	0,17	0,17	0,17	0,17	0,17	0,17	0,17	0,17	0,17
0,3	0,23	0,23	0,23	0,23	0,23	0,23	0,23	0,23	0,23
0,25	0,28	0,28	0,28	0,28	0,28	0,28	0,28	0,28	0,28
0,2	0,34	0,34	0,34	0,34	0,34	0,34	0,34	0,34	0,34
0,15	0,40	0,40	0,40	0,40	0,40	0,40	0,40	0,40	0,40
0,1	0,45	0,45	0,45	0,45	0,45	0,45	0,45	0,45	0,45

Figure 3.15: Equilibrium s=0.9, x=0.7

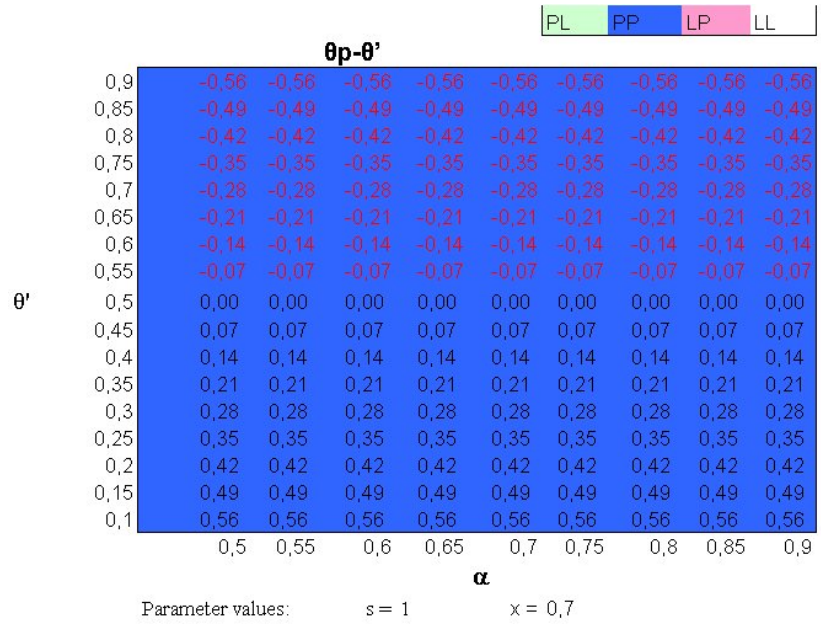
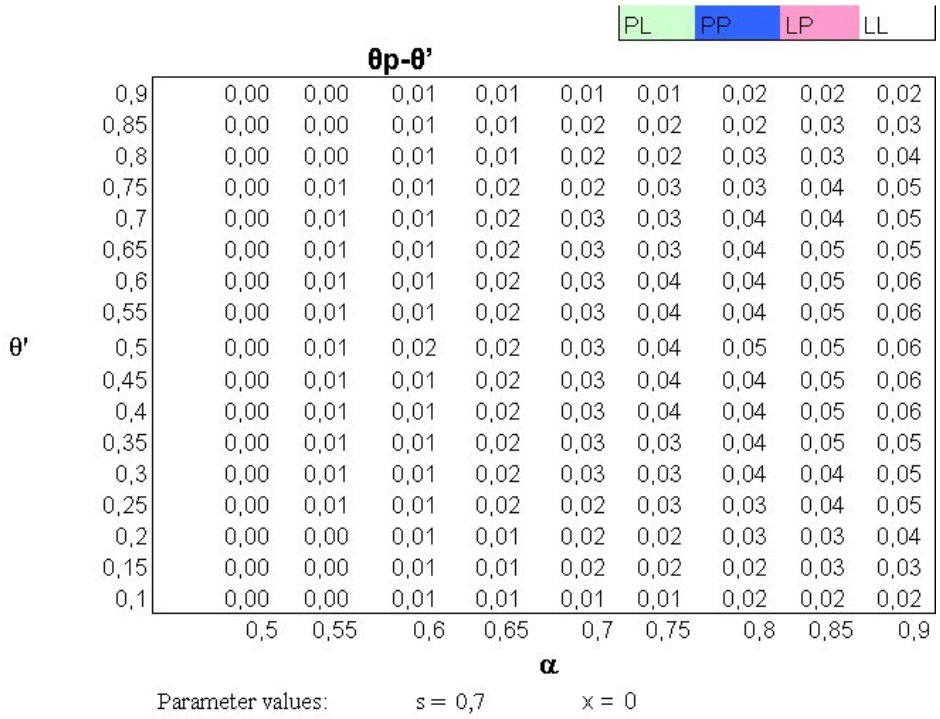


Figure 3.16: Equilibrium s=1,0, x=0.7

holding the public interest fixed at a relatively high level. We start of finding the equilibrium combinations for an issue which is simple and has a broad public interest, s=0.7 and x=0. From figure 3.17 we observe that LL is the equilibrium strategy combination for all values of θ' and α. Political pressure is not an equilibrium strategy because when the issue is simple, individuals receive strong private signals from their daily life about the outcome of policies, and hence is there no scope to change policy preferences of the median voter via political pressure. From figure 3.17 we see that all changes in policy are in favor of NGO_1. Due to NGO_1's resource advantage, it will always come out on top when both NGOs use informational lobbying in equilibrium. However the impact on policy is small, with the largest change being $(\theta_p - \theta')$=0.06. A high level of public interest makes the incumbent empha-



θ' \ α	0,5	0,55	0,6	0,65	0,7	0,75	0,8	0,85	0,9
0,9	0,00	0,00	0,01	0,01	0,01	0,01	0,02	0,02	0,02
0,85	0,00	0,00	0,01	0,01	0,02	0,02	0,02	0,03	0,03
0,8	0,00	0,00	0,01	0,01	0,02	0,02	0,03	0,03	0,04
0,75	0,00	0,01	0,01	0,02	0,02	0,03	0,03	0,04	0,05
0,7	0,00	0,01	0,01	0,02	0,03	0,03	0,04	0,04	0,05
0,65	0,00	0,01	0,01	0,02	0,03	0,03	0,04	0,05	0,05
0,6	0,00	0,01	0,01	0,02	0,03	0,04	0,04	0,05	0,06
0,55	0,00	0,01	0,01	0,02	0,03	0,04	0,04	0,05	0,06
0,5	0,00	0,01	0,02	0,02	0,03	0,04	0,05	0,05	0,06
0,45	0,00	0,01	0,01	0,02	0,03	0,04	0,04	0,05	0,06
0,4	0,00	0,01	0,01	0,02	0,03	0,04	0,04	0,05	0,06
0,35	0,00	0,01	0,01	0,02	0,03	0,03	0,04	0,05	0,05
0,3	0,00	0,01	0,01	0,02	0,03	0,03	0,04	0,04	0,05
0,25	0,00	0,01	0,01	0,02	0,02	0,03	0,03	0,04	0,05
0,2	0,00	0,00	0,01	0,01	0,02	0,02	0,03	0,03	0,04
0,15	0,00	0,00	0,01	0,01	0,02	0,02	0,02	0,03	0,03
0,1	0,00	0,00	0,01	0,01	0,01	0,01	0,02	0,02	0,02

Figure 3.17: Equilibrium s=0,7, x=0

size the voter's preferences, which makes the policy function correspondingly less responsive to informational lobbying. Consequently, when the issue is of public interest and not complex, will NGOs' have little impact on public policy.

x=0.5 while s=0.7

When we increase the complexity to $x = 0.5$, while still holding the public interest fixed at $s = 0.7$, we see from figure 3.18 that the equilibrium combinations are relatively equally distributed between PL, PP and LP for different values of θ' and α. There are no LL equilibriums. This situation is very similar to that of $s = 0.7$, $x = 0.7$ in figure 3.13. Again we find

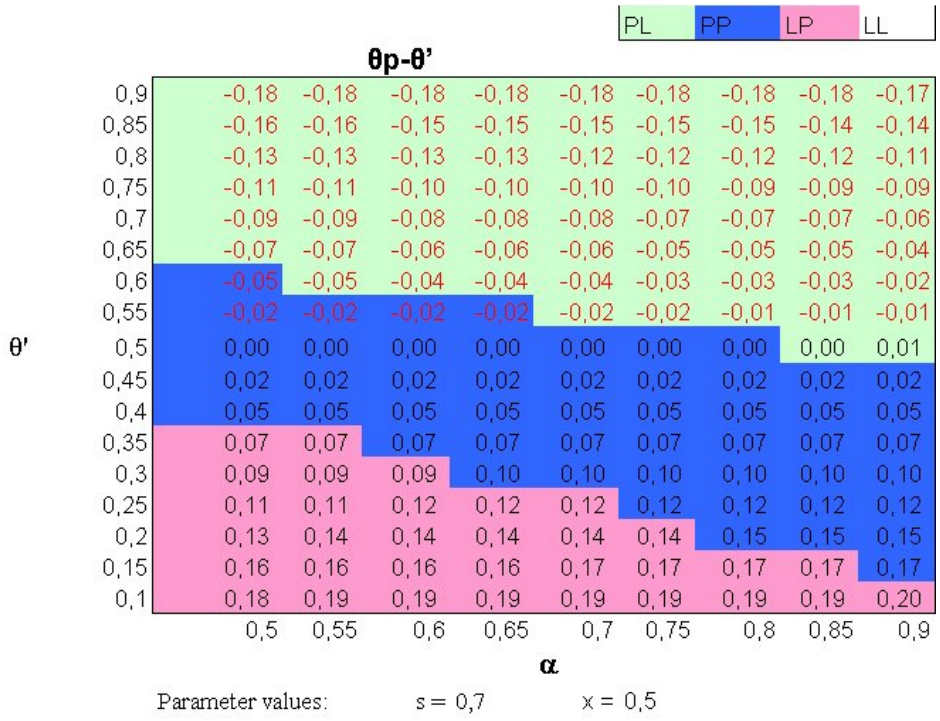


Figure 3.18: Equilibrium s=0,7, x=0.5

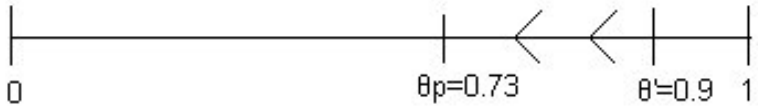


Figure 3.19: s=0,7, x=0.5,α=0.9

the interesting implication that for high values of θ' can the policy rule's responsiveness to political pressure outweigh NGO_1's upper hand with respect

to resources. Even if NGO_1 would have 90 percent of the total resources (α=0.9) NGO_0 can gain a net favorable policy movement if the programme policy is sufficiently remote from NGO_0's policy stand (see figure 3.19).

x=1 while s=0.7

The last situation we want to look at is the scenario of an extremely complex issue with broad public public interest. The results are depicted in figure 3.20, were we see that the tendency from figure 3.18 continues as the number of cells were PP is the equilibrium strategy becomes dominant.

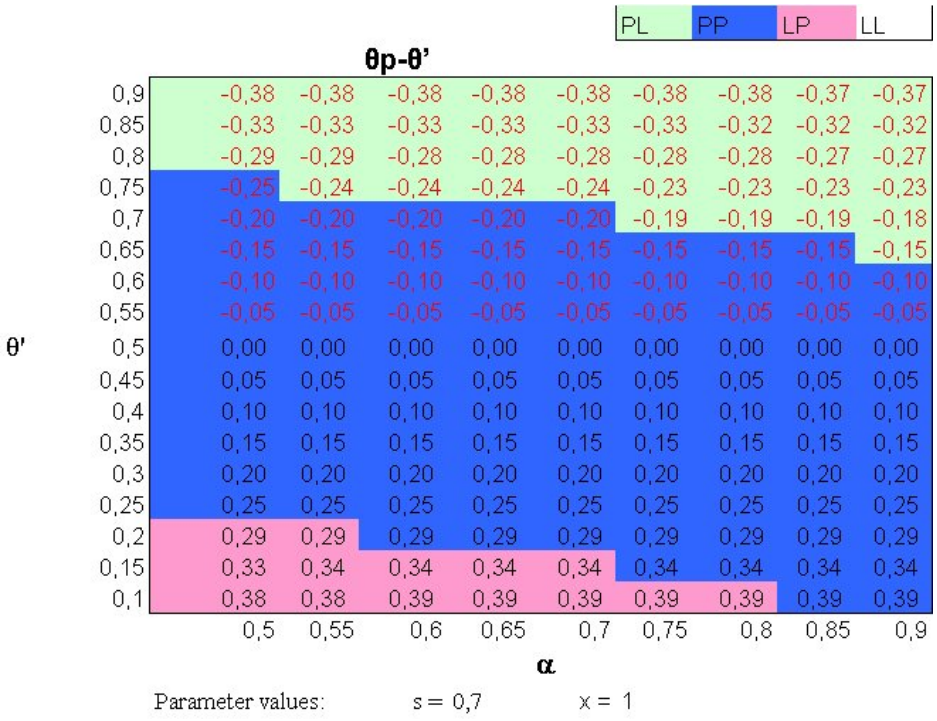


Figure 3.20: Equilibrium s=0,7, x=1.0

Given a more complex issue, everything else equal, it becomes more effective to apply political pressure since the probability of starting an infor-

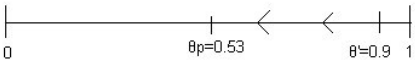


Figure 3.21: s=0.7,x=1,α=0.9,θ'=0.9

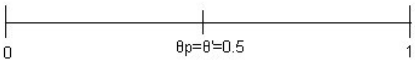


Figure 3.22: s=0.7,x=1,α=0.9,θ'=0.5

mational cascade becomes large. When x=1, voters have basically no private information, and consequently their preferred policy will be very responsive to any signal from the media. We see that for high- and low values of θ', the median voter's preferred policy will be carried a far distance on the policy scale (see figure 3.21). From figure 3.20 we see that when the party programme policy is in the middle range around $\frac{1}{2}$, both NGOs apply political pressure which result in that their efforts to change the public policy cancel each other out, leaving the median voter's preferred policy unchanged (for an illustration see figure 3.22). Due to the effectiveness of political pressure, the skewed distribution of wealth does not give NGO_1 any advantage in influencing the final policy level. To summarize, when x=1, the informational cascade effect is very strong, and can carry the median voter a long distance from its initially preferred policy. Given that the public interest is large, this in turn leads to a large shift in policy from the incumbent.

Chapter 4

Discussion

NGOs are characterized by working for their members' common interest outside formal political institutions. NGOs are a heterogenous group and there are no limits to the activities they might perform. However, one important feature is that they are non-profit and that their funding is provided by private donations, public funds or a mixture of the two. The focus of this thesis has been on advocacy NGOs and how they strategically use informational lobbying or political pressure to achieve impact on political decision processes.

NGOs and politics is a controversial combination. Critics claim that NGOs' increased political influence is undemocratic and diminishes welfare. Supporters emphasize that NGOs, and lobbying in general, is a positive complement to the electoral process, and that it contributes to bring out the preference intensity of voters [6].

The model developed in this thesis gives several predictions regarding why, how and which NGOs gain political influence. One of them is that the

largest policy responses are likely to be observed on complex issues of large public interest. If the conflict of interest between the incumbent and the NGO under these circumstances is large, then the NGO can start an informational cascade via the media, which consequently pressures the incumbent to change its policy significantly. We do not however expect to see much NGO impact on policy in situations where we have a non-complex issue of large public interest. In this situation the incumbent will emphasize the median voter at the same time as there is no scope for the NGO to start an informational cascade.

The model also gives predictions related to the distribution of resources between competing NGOs. Given a situation where we have an issue of little public interest, the model's prediction is in line with the conventional theory that the NGO with the most resources will gain policy influence. However, in situations where the specific issue is complex and of large or moderate public interest, the distribution of resources will be of little, if any, relevance for the final policy. In fact, the model predicts that a poor NGO can win the competition over policy if its interest of conflict with the incumbent is sufficiently strong.

The theory introduced in this thesis remains to be systematically tested. The model in chapter 3 is primarily intended as a crude point of departure for further research. Several extensions could however contribute to add additional realism into the model framework. Although I have assumed that NGOs either use informational lobbying or political pressure, in practice NGOs often use both strategies. This implies that the two strategies might be compliments rather than substitutes. By allowing NGOs to choose both

strategies at the same time, it is likely that one would find some interesting implications regarding the interaction between informational lobbying and political pressure. Another realistic extension would be to introduce costs of political pressure. In reality there are significant costs associated with initiating demonstrations and managing the media, and a more realistic assumption could be that the NGO would have to divide its resources between informational lobbying and political pressure. A third extension would be to introduce repeated games in the model. Most NGOs work to achieve long term goals and meet political decision-makers regularly over time. A natural extension would therefore be to allow for the game to be played over several succeeding periods in order to see what happens to the policy over time.

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List of Figures